Gleanings in Bee Culture

Established 1873

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DECEMBER, 1937

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B & Z LIBRARY

XUM

"God Bless ye, Merry Gentlemen
Let Nothing you Dismay,
For Christ our Lord and Savior
Was Born on Christmas Day!"

With this Christmas Carol so true in word and rhyme,
We send you Heartiest Greetings at this Joyous Time.

AUGUST LOTZ COMPANY

Boyd, Wis.

ROOT Service
FROM CHICAGO

To our friends and customers—

MERRY CHRISTMAS

Thank you for the favors you gave us this year. With a good finish of the old year—with a determined beginning in the new year—Let us make it a **GOOD WINTER.**

Honey Sales—Keep your honey customers. We have and offer select lots. Glad to send samples as desired. Write us about your needs.

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Bee Supplies—Let us quote on your list for December shipment.

You may gain good interest through ordering this month.

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CHICAGO, ILLINOIS

QUALITY

Consider the quality of our comb foundation first and the price last in making your decision.

The wax is cleaned and bleached mechanically without the use of strong acids. It is sheeted under tremendous pressure to give the sheets toughness and strength. Then the sheets are milled with the true cell base and high cell wall which the bees accept the quickest. Finally each sheet is inspected and papered by hand and carefully packed in strong cartons.

Compare our product with that of others first and then compare the prices.

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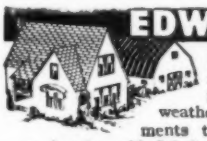

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Manufacturers of a complete line of Honey Extractors, one for every requirement. Send for printed matter.

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GRAND RAPIDS, MICH.

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from Syracuse—where orders are shipped promptly.

5-LB. PAILS—50 in carton
$ 3.45 for 50 $ 6.80 for 100
32.00 for 500 62.00 for 1000

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$5.00 for 50 $46.50 for 500

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10% DISCOUNT ON ALL JARS—in lots of five or more gross, one or assorted sizes, from our list price.

Send for our complete list on all honey containers.

Send your old combs and cappings to us to be rendered into wax. Our new steam presses get all the wax there is, and we pay the highest market price. Send for our complete terms.

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Prices effective October first
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2½ lb. cans.....	$2.25	$4.25	$21.00
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10 lb. pails.....	4.85	9.65	47.50

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50	5-gal. cans	14.00

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COMB AND EXTRACTED

Honey Wanted!

Send sample of extracted and advise quantity

Describe comb honey—grade, size section and how packed

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We have a special proposition of interest to all dealers or to all beekeepers who wish to become dealers of Beekeepers' Supplies. Write for information. All goods are **GUARANTEED SATISFACTORY.**

falcon Quality Products

W. T. Falconer Mfg. Company
Falconer, New York

XUM

The Monthly Honey Market

U. S. GOVERNMENT REPORT
Information from Producing Areas (first half of November).

California Points: Southern California—Weather conditions have been normal, with considerable night and early morning fogs along the coast. Bees are generally in better condition for wintering than a year ago. Colonies are strong and supplies of honey and pollen are unusually good and sufficient to winter on. Bees in orange groves, near eucalyptus windbreaks, are making some new honey, and bees are brooding up a little. Eucalyptus trees are beginning to bloom unusually early this season. Following several months without much rain moisture is needed to get sage and other wild flora started. Demand for honey has been moderate to slow with offerings by beekeepers more liberal and the market undertone slightly weaker. Many beekeepers, however, continue to hold in anticipation of higher prices later. Sales by beekeepers in ton lots or more, f. o. b. Southern California delivery points, per lb.: Orange, Extra White to Water White 6¼-6½c, few 6⅝-6¾c, White 6-6⅛c; Sage, Extra White to Water White 5½-6c, few higher, White 5-5⅛c; Buckwheat-Sage, Light Amber to Extra Light Amber 4½-4¾, few 5c; few sales Light Amber Buckwheat 5c. Beeswax is steady at 22-24c per lb. delivered Los Angeles.

Imperial Valley—Conditions are good for winter, and in many yards are better than normal. A few drones are still flying and some brood has been reared. Bees are still working on cotton and on late tamarisk, sunflower and wild asparagus bloom. Pollen is being secured from milo and wild flowers. Sales reported of Light Amber to Extra Light Amber Alfalfa at $5.50-5.70 per case of 120 lbs., including several cars at $5.70 per case. Buyers are active and several large producers are reported holding their Alfalfa for $6.00-6.50 per case. Good quality beeswax has sold at 24c per lb.

Central California—Cooler weather has been general over most of the area, with fairly heavy showers occurring toward the close. Bees are working occasionally on blue curl, alkali weed, and eucalyptus, with eucalyptus trees indicating a prospective heavy bloom. Brood-rearing is practically over. The honey market shows little change. Most dealers had considerable stock on hand and are buying only an occasional lot from beekeepers willing to sell at prevailing prices. Many beekeepers continue to hold. Sales by beekeepers in ton lots or more, f. o. b. Central California delivery points reported, per lb. as follows: Sage, Extra White to Water White mostly 6c, White to Extra White 5½-5¾c; Light Amber Alfalfa 4¾c; Light Amber Mixed Flowers 4⅛-4½c. No. 1 Buckwheat comb, $3.25 per case.

Northern California—Cooler weather has been general with several periods of rain. Blue curl is about the only source that still remains on which bees can work. Bee population is below normal and though stores of honey are ample, pollen supplies are reported short. A large quantity of incense cedar honey dew is now available in the highest Sierra Nevadas, but this is about a month behind the normal schedule and too late to be of much use to the bees. The market is rather quiet, with light buying reported. Most buyers are now well supplied with honey and are not purchasing except where prices are especially favorable. Some beekeepers are offering honey freely but others are holding in the hope of a higher market later. Sales by beekeepers in ton lots or more, per lb., f. o. b. Northern California delivery points: Thistle, Extra Light Amber to White 5-5½c; Light Amber Mixed Flowers 4⅛-5c.

Offerings of beeswax limited, with good demand for available supplies. Good yellow wax has been moving at 22-24c per lb., f. o. b. producing points in Northern and Central California.

Pacific Northwest: West of Cascades—Temperatures have recently ranged lower, with much rain, and with the first snowfall of the season in the upper portion of the area. This is the earliest snowfall since 1911. The fall was previously mild, however, and honey plants are in good condition. Bees have sufficient honey and pollen to carry them over the winter. Honey is moving out of beekeepers' hands rather rapidly, with the market firm, and beekeepers look for higher prices.

East of the Cascades—Rains have fallen frequently, especially in the western portion of this area. The first killing frost has occurred but temperatures until recently were slightly above normal. Colonies have been in good shape. Most colonies are strong in numbers but as brood-rearing practically stopped several weeks ago young bees are lacking. Plant condition is fully normal. Comb honey production this year was very light. Stores are generally ample. Sales reported White to Extra White Sweet Clover, large lots 5¾-7c per lb., small pails 8¾c per lb.

Intermountain Region: Demand for honey in carlots is reported rather spotted though inquiries have been frequent and local demand has been normal. Nevertheless, frequent cars of extracted honey have been sold and as available supplies are limited the market has strengthened slightly and appears fully firm at the close of the period. Some of the sales represent honey of the 1936 crop. Price ranges have been rather wide for carload lots. Carlot sales of White to Water White Sweet Clover-Alfalfa have been reported sold at 5¾, 6c, 6⅛c, 6¼c and 6½c per lb., less carlots mostly 6-6⅛c, some 5½-5¾c and many lots reported at 5½c with cans returned; 60s 6-7c per lb.; small pails 7½-8c per lb.; 1 large car one-half good White honey and ½ Amber off-flavor 5½c; Light Amber to Extra Light Amber, 2 cars 5⅜c plus cans, 1 large car 5.65c, less carlots 5¼c-6⅜c, small pails 7½-8½c per lb. Comb honey is very scarce with wide price range. Sales reported of No. 1 and Fancy White at $3.30-3.75 per case, Commercial low as $2.40 per case. Beeswax is quoted at 23-25c per lb. cash.

Colorado—The fall weather has been mild but the soil is becoming very dry and moisture is needed badly to give roots of sweet clover plants the start needed for next season. The lack of snow in the mountains is also unfavorable for next year's plant growth. Bees have been able to fly much of the time, and where colonies have not been fed it is feared that at least occasional colonies will be out of stores before next spring even on the Western Slope. Considerable dark oak honey reported on the Western Slope. The entire State has had a disappointing crop, ranging from a failure in Northern Colorado to slightly under normal in the San Luis Valley.

Wyoming—Bees are entering winter in good condition but winter stores in many colonies are rather short and beekeepers are fearful lest the winter loss be substantial. Some feeding is still being done. Recent rainfall has helped to improve the condition of honey plants. Little honey remains from the short crop.

Montana—The weather has been abnormally warm and brood-rearing has continued, making colonies strong for winter. This has resulted in heavy consumption of stores and many hives are light. Most bees are now fed and packed

for winter but some beekeepers are waiting for colder weather. One reporter tells of picking strawberries and raspberries on November 5.

Idaho—Toward the close of the period cold, windy weather with some rain put an end to the exceptionally mild, dry weather which permitted frequent flights. Plants are still in need of more moisture, however. Most colonies are packed for winter and average shorter in stores and lighter in bees than normal, and the stores are poorer in quality than usual. Some beekeepers are simply using wind breaks instead of packing their colonies for winter.

Utah—Fair weather continued until toward the close of the period, and the very favorable fall days permitted frequent bee flights. Some pollen has come in recently. Colonies are now nearly all packed, however. Recent rainfall will aid in developing honey plants for next year. Reports continue to emphasize the fact that the crop of honey may average only half of that of last year, and some large commercial beekeepers have taken no surplus at all. Color of the honey is darker than normal.

Nevada—Rainfall has been scanty. Bees have been flying almost daily and are going into winter quarters with an abundance of young bees except in districts where loco weed poisoning was prevalent during the summer.

SUMMARY—The fall has been unusually mild, permitting frequent flights on the part of the bees and causing beekeepers to delay preparations for winter. The late flying has often meant heavy consumption of stores intended for winter and has thus necessitated more extensive feeding than beekeepers had anticipated. Even though feeding has been heavier than customary over much of the country many beekeepers are looking for larger winter losses

(Continued on page 764)

Monthly Report of Honey Producers

Early in November we sent the following questions to honey producers: 1. What per cent of the honey produced in your locality has already left the hands of the producers? Give answer in per cent. 2. At what price has honey been sold or contracted for, if any, in large lots (carload or less) in your locality during the past month for (a) extracted honey, per pound? (b) comb honey, Fancy and No. 1, per case? 3. What are prices when sold to grocers in case lots of (a) extracted honey in 5-lb. pails, or other retail packages in terms of 5-lb. pails? (b) Comb honey, fancy and No. 1, per case? 4. What is the retail price to consumers in your locality of (a) extracted honey in 5-lb. pails, or other retail packages in terms of 5-lb. pails? (b) Comb honey, fancy and No. 1, per section? 5. How is honey now moving on the market in your locality? Give answer in one word, as slow, fair or rapid. 6. What is the condition of colonies for winter in your locality compared with normal, considering the number and age of bees and the supply of stores? Give answer in per cent. 7. How does the number of colonies to be wintered in your locality compare with that of last year? Give answer in per cent. 8. What is the present condition of honey plants in your locality as compared with the average? Give answer in per cent. The answers received are tabulated as follows:

State. Name.	Pct. sold.	Large lots. Ex.	Large lots. Comb.	To grocers. Ex.	To grocers. Comb.	To retailers. Ex.	To retailers. Comb.	Movement.	Cond. of col. col.	Pct. col. win.	Cond. honey plants.
SC-Ala. (J. M. Cutts)	..	..	..	..	..	..	..	..	..	100	90	100
B. C. (A. W. Finlay)	50	.09½	..	.70	..	.90	..	Fair	..	100	100	100
S-Calif. (L. L. Andrews)	20	.06¾	..	..	..	.57	.15	Fair	..	100	100	80
C-Calif. (Davis Bros.)	50	..	..	.43	..	.55	..	Slow	..	100	90	100
SE-Colo. (Otis E. Adcock)	40	.06½	..	.45	3.50	.55	.20	Slow	..	100	100	75
E-Conn. (Allen Latham)	5	..	..	.75	5.00	1.00	.30	Fair	..	100	100	100
C-Conn. (A. W. Yates)	75	.07½	4.50	.70	5.00	1.00	.50	Slow	..	100	100	100
S-Fla. (C. C. Cook)	..	.07	..	.50	..	.60	..	Fair	..	100	100	100
C-Fla. (Harry Hewitt)	75	..	..	.50	..	.65	..	Fair	..	100	95	100
SE-Ga. (J. J. Wilder)	60	.07½	..	.50	..	.65	..	Fair	..	100	110	100
NC-Ind. (T. C. Johnson)	30	..	..	.55	4.00	.75	.20	Fair	..	90	100	100
NW-Ind. (E. S. Miller)	25	..	..	.50	3.00	.65	.20	Fair	..	95	90	100
W-Iowa (E. G. Brown)	95	.06	..	.55	..	.65	..	Fair	..	100	75	100
N-Me. (O. B. Griffin)	40	..	..	..	4.87	..	.30	Fair	..	100	120	100
N-Mich. (Ira D. Bartlett)	80	..	..	.55	..	..	..	Fair	..	90	90	90
C-Mich. (E. D. Townsend)	100	.08	..	..	..	..	..	None	..	80	100	80
E-Minn. (Floyd W. Ray)	90	.06	..	.45	..	.60	..	Fair	..	90	100	90
W-Minn. (B. L. Morehouse)	..	.06½	..	.50	..	.65	..	Rapid	..	..	95	..
E-Minn. (M. W. Cousineau)	80	.06¼	..	.47	..	.49	..	..	..	90	90	100
W-Nev. (Mrs. E. G. Norton)	100	.05¼	..	..	..	..	..	Fair	..	90	90	90
W-Nev. (Geo. G. Schweis)	..	.05	3.25	..	..	.45	.20	Fair	..	75	110	100
C-N. Y. (F. W. Lesser)	..	.07¾	..	..	..	.60	..	Fair	..	100	100	125
NW-N.C. (C.S. Baumgarner)	100	..	..	..	..	..	..	Slow	..	75	100	125
SE-N. C. (W. J. Martin)	80	.07	..	.65	2.40	.85	.28	Fair	..	100	100	100
C-Ohio (R. D. Hiatt)	100	..	..	.57	4.60	.75	.30	Good	..	85	100	125
NC-Okla. (C. F. Stiles)	50	..	..	.45	..	.65	.20	Fair	..	80	90	90
C. Okla. (C. A. Baltzley)	70	.06	2.65	.54	3.60	.61	.20	Slow	..	80	100	75
W-Ore. (H. A. Scullen)	25	.07½	..	.40	..	.55	.25	Fair	..	100	100	100
C-Pa. (Harry Beaver)	20	.08	..	.55	3.25	.65	..	Fair	..	100	100	90
SE-Pa. (D. C. Gilham)	20	..	..	.70	4.25	1.00	.25	Fair	..	90	110	100
E-Pa. (Wm. M. Glebe)	50	..	..	.75	..	1.00	.30	Fair	..	50	75	75
W-S. C. (E. S. Prevost)	100	..	..	.60	..	.75	..	Fair	..	80	..	100
C-Tenn. (J. M. Buchanan)	75	..	..	..	..	.75	..	Fair	..	100	100	90
C-Texas (T. A. Bowden)	65	..	..	.50	..	.60	..	Fair	..	50	95	50
S-Texas (J. N. Mayes)	90	.05	..	..	..	..	..	Slow	..	100	100	50
S-Texas (H. B. Parks)	75	.06	..	.48	..	.55	..	Fair	..	95	100	100
N-Utah (W. H. Hendricks)	80	.05¾	..	..	..	.53	..	Fair	..	100	100	100
W-Vt. (Phillip Crane)	..	..	3.87	.75	4.75	1.00	.30	Rapid	..	95	110	90
SC-Wash. (Chas. Higgins)	50	.06¾	..	..	..	.54	.23	Fair	..	95	100	100
N-W. Va. (W. C. Griffith)	75	..	..	..	..	..	.35	Rapid	..	100	150	80
SE-Wisc. (N. E. France)	80	..	..	..	..	.55	..	Fair	..	90	..	90
N-Wyo. (Earl C. Reed)	75	.06¼	..	.50	..	.65	..	Fair	..	100	90	75

XUM

Will New Jersey Remain Unchallenged?

". . . . . I therefore feel that we are safe in challenging any other state which will in 1937 double or treble its quota. We will increase our quota by any percentage which any other state does . . . . . Have we any challengers?"

—Richard Barclay, New Jersey

The above statement appeared in an article written by Mr. Barclay and published in the January issue of the American Bee Journal. Will no state accept her challenge?

The new 3c per case plan is now in effect. Ask your buyer to deduct this amount for Honey Publicity from your check and send it to the Institute Treasurer for your membership.

Remember! All memberships must reach the Institute Office not later than December 31 to be included in the 1937 Membership Directory.

American Honey Institute

Madison, Wisconsin

This space donated to American Honey Institute by Gleanings in Bee Culture.

"Three Thousand Cans Extracted--No Broken Combs"

"You may be interested in knowing that we have extracted approximately 3,000 60-lb. cans of honey with the 8-frame 'LIFETIME' extractor which we purchased from you at the beginning of the honeyflow. At the time the machine arrived, we were anxious to begin extracting and did not take the time to anchor it, other than to connect the extractor to the honey pump with a piece of hose. We operated the extractor that way for ten days, during which time we took off 1,000 60-lb. cans of honey. It is surprising how smoothly the extractor ran, merely set on the cement floor.

"We had a 16-year old boy running the extractor and regardless of weather conditions and the speed at which we extracted, there were no broken combs. We wish to assure you that we are entirely satisfied with our 'LIFETIME' extractor."

(Signed) STUART BRO.,
Jerome, Idaho.

NEW DENVER BRANCH NOW OPEN

The Denver branch is being opened to better serve the increasing number of customers which we have in the Denver area. The address is 3759 Wazee Street (corner of 38th and Wazee Streets) right at the 38th Street subway and just off highway No. 85. The conduct of our business at Denver will be along the same lines as at our other houses.

Superior Honey Company, Ogden, Utah

Branches at Idaho Falls, Idaho; Los Angeles, California and Denver, Col.

We Buy Honey and Beeswax for Cash

Or, we'll trade for
Bee Supplies. Write us.

We also render old comb into wax at very nominal charges. Be wise. Economize by having your beeswax worked into comb foundation at our low working prices. Be ready for next Season's honey flow. Have your wax worked NOW. Send for prices.

THE FRED W. MUTH CO.

Pearl & Walnut Sts. **Cincinnati, Ohio**

Containers

Plain Friction Top Cans and Pails

Friction top cans and pails are the best and cheapest package for selling honey to the consumer. Every beekeeper should have a supply and should push the sale of his honey by their use. We have one of the best lines of friction top cans and pails now manufactured.

Modernistic Jars (Skyline)

For several years, we have been furnishing Modernistic style of jars, and they are our best sellers. These jars are clear and bright and very attractive and we are able to make attractive prices.

All caps used on our jars are **white**, which adds to the appearance of the jars and of the honey.

Window Cartons for Comb Honey

While the window cartons are a little higher in price than the revelation comb honey wrappers, they are also more substantial and the sections of honey are more easily packed in them. For a strictly fancy product, the comb honey window cartons are of unusual value.

Revelation Comb Honey Wrappers

The best and most economical wrapper on the market. Our revelation flat wrappers and bag wrappers are made with cellophane and waxed paper and printed attractively so as to make best possible display of comb honey. These wrappers are much cheaper than the all cellophane wrappers and are more easily handled.

You will find these and many other items listed with full prices in our 1937 honey container list. Write to

DADANT & SONS

HAMILTON, ILLINOIS

BEESWAX WANTED

We buy at all times. Drop us a card stating quantity you have to offer.

Vol. 65
No. 12

Gleanings
in Bee Culture

December
1937

Merry Christmas!

Mrs. Benjamin Nielsen

Honey Goodies with Gay Wrappings Have a Place in the Joyous Yuletide Season

Mother or sister will be delighted to receive a little old-fashioned lady filled with choice honey candies.

Brief December days go swiftly by, the Yuletide spirit invades the kitchen, and the preparation of holiday goodies begins in earnest. Right now we are practically smothered in gay wrappings and mystery but some time soon we're going to find a spare afternoon or two and go on a candy and cooky making spree.

There are so many nice things to be said for honey. And one of its good points is particularly useful at the holiday season. When honey is used in the making, cakes, candies and cookies may be prepared far in advance of the actual date needed and packed away to await demand. This leaves precious hours free for the accomplishment of the many "last-minute" things there always seem to be no matter how well we think we have made our plans. Best of all, the homemaker can proceed with other activities happy in the fact that honey goodies will be just that much better in flavor for aging a bit.

Sparkling Cellophane Wrapping

We'll take our choicest honey goodies, wrap them gayly and use them for "gifts a bit different." Regardless of the type of gift it should be attractively wrapped. No hardship this, but exciting fun limited only by one's imagination! Each year new colors and designs come to town—decorated paper, some streamlined for those with modern ideas. Tissue of shimmery softness and sparkling cellophane offer endless possibilities. For honey gifts, from our kitchen to theirs, there is no lovelier wrapping than cellophane. Be it shimmering yellow sheathing a glass of choicest honey or red or green for a bit of delicately colored honey jelly, it reveals and enhances the lovely gift.

Perhaps you liked one of the fruit cake recipes appearing in the December, 1936, issue of Gleanings well enough to include it in your permanent files. Prepare one of these, or your own favorite, in the usual way,

XUM

then transfer it to a glass pan of the "top-of-the-stove cooking type" we all talk about (and few possess), or one of the lovely heat-proof, smartly decorated oven dishes now available. Wrap it in gay paper, tie with a perky bit of ribbon and you have a gift deluxe.

To Wrap a Plum Pudding

Steam a honey plum pudding (recipe in November, 1936, Gleanings) in a large size baking powder or coffee can, slip it into a paper carton of cylindrical shape such as some drug stores use for ice cream, or an oatmeal container. The one in the illustration was covered with decorated paper then placed on a piece of cellophane cut wide enough to circle the cylinder and to lap about an inch, and several inches longer than the box. Ends were twisted and tied with bright ribbon tinsel. Another attractive wrapping may be made by cutting a piece of cellophane wide enough to circle the container and lap about an inch and several times as long as the box. Place the carton on the cellophane, leaving two to four inches, depending upon the size of the carton used, extending below the bottom. Glue lapped edges, pressing firmly. Allow to dry thoroughly, then turn edges under at the bottom and fasten with a seal. Beginning at the bottom work the cellophane down onto the carton producing a shirred effect. Leave about six or eight inches at the top above the lid, draw together, tie with figured cellophane ribbon and spread out attractively to complete.

In wrapping any box use only enough paper to cover the package. Great quantities of paper lapped over the ends of a package detract from its attractiveness. Cut paper to fit and glue it down. To give a finished "just so" look to the bows, make them before placing on the package. Do not attempt to tie them. Insert a pin through the middle of the bow (a few tiny stitches will prevent slipping, too) and then anchor it firmly into the box bending the pin to one side.

Fruity Bars

Spicy and nice for friends or family are these Fruity Bars. For these you will need: one-fourth cup butter, 1 cup honey, 3 eggs, 1½ cups sifted flour, ¼ teaspoon salt, ¼ teaspoon soda, ½ teaspoon each of cloves, cinnamon and nutmeg and ¼ teaspoon ginger, 1 cup dates or figs, chopped, and ½ cup nutmeats. Cream shortening, add honey and blend thoroughly. Add well beaten eggs and mix well. Sift flour with salt, soda and spices and add to honey mixture. Add fruit and nuts. Spread thinly in shallow pan. Bake 35 to 45 minutes in a moderate oven, 350 degrees F. When cold wrap in waxed paper. Store in covered crock or tin box. When ready to serve, cut in bars one by four inches and roll in confectioners' sugar or spread with seven minute honey icing.

Date Bars

Made without shortening the following Date Bars will keep for months and the flavor actually improves with age. For them assemble: Three eggs, 1 cup honey, 1⅓ cups sifted flour, 1 teaspoon baking powder, ¼ teaspoon salt, 1 teaspoon vanilla, 1 pound of dates and 1 cup nutmeats.

Add honey to well beaten eggs. Blend well and sift in flour, salt and baking powder. Mix well. Add dates, finely chopped and the broken nutmeats. Stir to combine. Spread thinly on greased pan. Bake 25 minutes in a moderate oven. Store in covered crock or tin container. When ready to use, spread with honey icing or roll in confectioners' sugar.

Honey Caramelcorn

Pop corn belongs most definitely to our American Christmas season and Honey Caramelcorn makes apology to none. For this, assemble: Two cups sugar, 3 tablespoons honey, 2 tablespoons butter and 4 quarts of freshly popped corn.

Melt the sugar in an iron skillet over a low fire, stirring constantly to prevent scorching. When sugar is entirely melted, add honey and butter and stir quickly to mix well. Pour over popped corn in a thin, even stream and stir thoroughly to coat the kernels evenly. Let harden well and break into small pieces.

Honey-Nut Brittle

Any kind of nutmeats may be used in Honey-Nut Brittle, but we prefer almonds. The nutmeats should be spread in a shallow pan and toasted to a delicate brown in a moderate oven, 350 degrees F. For this tasty confection you will need: One-half cup sugar, ½ cup hot water, 1 cup honey, 2 tablespoons light corn syrup, ⅛ teaspoon salt, 1 tablespoon butter and 1 cup nutmeats broken into small pieces and toasted.

Combine sugar, water, honey, corn

syrup and salt and cook over a low fire, stirring constantly, until a small amount "cracks" when dropped in cold water. Remove from heat, add butter and nuts, stirring just enough to mix. Pour into buttered pan and press out with a knife or spatula. When cool enough to handle pull out into a thin sheet. Allow to harden then break into pieces.

Honey Jelly

Honey jelly making knows no season. In its original color or tinted red or green to suit the holiday mood it makes a most acceptable gift. To make it, combine: Five cups honey, 1½ cups unsweetened pineapple juice (water may be used) in a saucepan. Bring to a full, rolling boil. Add 1 cup liquid fruit pectin, stirring constantly. Heat to full boil again, remove from heat at once. Skim if necessary and pour into sterilized jars or glasses. Cover with melted paraffin. This amount makes about 10 six-ounce glasses.

Rainbow Jelly

If time permits and fancy dictates we'll make some rainbow jelly, mold it in plain glasses and sheath it in colorless cellophane to best advertise its attractiveness. A sprig of holly with bright red berries and a bow of red and green ribbon will complete our color scheme. Using the above recipe make one-half or one-fourth the amount depending on the number of glasses to be filled. Be careful of measurements, too. When ready to pour, tint with a few drops of red vegetable coloring and pour into the glasses to a depth of one inch. Set aside to jell until the following day or until it is possible to make another batch. This time leave it the sparkling, sunshiny honey color and pour on the first batch of jelly to a depth of one inch. Set aside as before. On the third jelly-making spree, tint the jelly green and proceed as before. Continue this process until the glasses are filled. To add a bit of mystery and set your friends to guessing you might vary the "stripes" by making the plain honey jelly with pineapple juice, the red with water and adding a drop or two of oil of cinnamon and adding a bit of mint to the delicate green jelly.

A bit of choice honey or delicately flavored honey jelly in attractive wrapping makes a most acceptable gift.

Attractively wrapped gifts add to the pleasure of receiving them. Who would guess that the gayly wrapped cylinder began its career as a humble oatmeal box?

Honey Gelatine Cubes

Honey gelatine cubes will make a fitting and not too heavy dessert to top off the usual hearty Christmas dinner. Here, too, the season's traditional colors, green and red may be carried out. Dissolve one package of strawberry, cherry or raspberry flavored gelatine in 1¾ cups of boiling water, add ¼ cup of honey and 1 tablespoon of lemon juice. Pour into a shallow pan and allow to set. Use lime or lemon flavor for the second batch, adding a few drops of green vegetable coloring. Proceed as above and pour into a second pan. When ready to serve, cut gelatine in small cubes, pile lightly in sherbet glasses and top with a dash of whipped cream slightly sweetened with honey.

The Children Can Help

Might as well try to keep bees out of honey as to try to keep the children (Dad, too,) out of the kitchen when holiday goodies are in the making. If they insist on helping and there are no cookies that need timing or deco-

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XUM

Why Liturgical Candles are Made of Beeswax

H. H. Root

[The citations quoted are from a mass of material supplied by the Redemptorist Rev. John Daszkiewicz.—H. H. R.]

Within recent years there has been manifested in the Catholic Church a revived and more widespread interest in the Liturgy on the part of the laity. Books and magazine articles explaining the Liturgy and the symbolism of the ceremonies and objects used in the sacred rites of the Church are of frequent appearance. One of the topics treated in these expositions will be of interest to the readers of Gleanings, namely, candles made of beeswax.

Candles play a conspicuous part in the ceremonies of the Catholic Church. In the Catholic Encyclopedia under "Candles" (vol. III, p. 247) we read that the Christians from the earliest times attached a definite and very beautiful symbolism to the lighted candle made of beeswax. Being convinced of the virginity of the bees, they regarded the wax "as typifying in a most appropriate way the flesh of Jesus Christ born of a Virgin Mother. From this has sprung the further conception that the wick symbolizes more particularly the soul of Jesus Christ and the flame the Divinity which absorbs and dominates both. Thus the great paschal candle represents Christ, the True Light, and the smaller candles are typical of each individual Christian who strives to represent Christ in his life."

To regard the beeswax of the candles used in religious ceremonies as typifying the body of the Redeemer born of a Virgin Mother, is one of the most beautiful examples of symbolism to be found in all the varied Liturgy of the Church. It is true that the Fathers of the Church who introduced this symbolism had a very primitive conception of the life of a bee and adopted a theory of propagation now known to be false. Yet in spite of that, their symbolical interpretation is just as valid and true today in the light of modern science as it was in the first centuries of the Christian era. Unfortunately, however, some liturgical writers seem to think the opposite. They speak as if our present-day knowledge about bees and their manner of propagation has discredited this symbolism by robbing it of its foundation. In this they are wrong as can be demonstrated conclusively.

It will aid our study of the question to quote a few typical examples of modern liturgical writers who think that the wax candle can no longer be regarded as a real symbol, founded in nature, of the Redeemer born of a Virgin. The italics used are inserted.

In a booklet, "Candles in the Roman Rite," by the Rev. Edwin Ryan, D.D., we read on page 10:

> The custom of making church candles of beeswax was suggested from the **then supposed virginity of bees**, their wax being taken as a symbol of the Body of the Redeemer derived from His Virgin Mother, an interpretation which retains its beauty even though the **biological concept underlying it has long been rejected.**

(Dr. Ryan has since acknowledged the error and expressed his thanks for having his attention called to it.)

Mary Rose Parent in an article entitled "Candle Power" which appeared in the January 5, 1935, issue of "The Ave Maria" published at Notre Dame, Indiana, echoes the same sentiment: "Old Roman writers mention making candles out of beeswax and because of a certain significance the Church enjoins that candles used in the Mass be made if not wholly, at least mainly, of wax. It is the **old idea of the virginity of bees** that suggests the use of beeswax in ceremonies honoring Christ commemmorating His birth of a Virgin Mother."

The Benedictine Monks are perhaps the most prominent in the movement to enlist the interest of the laity in the Liturgy of the Church. Their pronouncements, therefore, count much in fashioning popular opinion in this matter. In the "Homiletic Review" for 1926 (vol. 26, p. 1151) in an article entitled "Lights and Candles in the Liturgy" by a Benedictine of Buckfast Abbey, England, we find this:

> Ecclesiastical writers of the Middle Ages have much to say about the symbolical meaning of our wax candles. With St. Anselm they see in the pure spotless pillar of wax an image of the Virginal Body of Christ; the wick stands for His Soul; and the bright flame on the summit of the lighted candle is for them a fitting symbol of His Godhead. This symbolism applies in a peculiar manner to the stately paschal candle, but it is equally true of the humble tapers of everyday use. The idea which

gave rise to this universally accepted mystical interpretation was the erroneous notion concerning the nature of bees which medieval writers had inherited from the old philosophers and poets. The pure fragrant wax of our candles is produced by the bee, about whose parthenogenesis no one entertained any doubt, that is, its propagating itself without contamination of sensual indulgence. That great naturalist, Pliny the Elder, held this opinion and Virgil, whose authority and influence upon the medieval mind was paramount, repeats it in his own sonorous hexameters.

Let us now take a look at the ideas about the nature of bees and their propagation prevalent in the early centuries of the Church and upon which the symbolism in question was based.

St. Ambrose (340-397 A. D.) is very explicit:

Bees all have the power to propagate but in the exercise of this power they retain the virginal integrity of their bodies and as virgins beget their offspring; for there is no mating among them, nor are they subject to carnal passion and they do not suffer the pangs of parturition. Yet, lo, they send forth a swarm of descendants having gathered their offspring in their mouth from the plants. (Migne: vol. XIV, column 234.)

Rufinus (345-410) is very emphatic about the virginity of bees:

It is evident to all that bees know nothing of mating and that they do not travail in the begetting of their offspring. (Migne: vol. XXI, col. 350).

St. Augustine (354-430) is equally emphatic:

It is certain that bees do not receive the seed of their offspring in carnal intercourse but find it scattered over the countryside and gather it in their mouth. (Migne: vol. XLII, col. 876).

It is to be noted very carefully that there are **two distinct contentions** in these ancient views about bees. First, that they are virgins because they do not conceive and give birth in the ordinary carnal manner. The second contention, distinct from the first, is that they propagate by gathering the seed of their fruit either from plants and flowers, as some held, or, as others thought, from the cadavers of oxen. Now, the first contention, namely the virginity of bees, and for the reasons assigned by these authors, that they do not conceive and beget offspring in the ordinary carnal manner, can stand even if the second contention, the peculiar manner of propagation, be proven false. Modern scientific investigation, through its discoveries about the nature and function of the queen bee, has proven the **old theories of propagation** false, but at the same time it has firmly **established the virginity of the worker bees** which produce the wax—and it is on this latter that the symbolism of the wax used in candles is founded: the wax is the symbol, not the bee. In fact, far from voiding this symbolism, modern science has established for it an even firmer and more legitimate foundation. Early naturalists spoke of the bee as neuter. This idea is adopted by St. Augustine in his famous work, "The City of God" (Migne: vol. XLI, col. 475): "Among bees here is neither male nor female." Modern science, however, has proven that worker bees are female, undeveloped and incapable of mating. The fully developed female which alone is capable of mating with the drone and does so mate, is the queen. The female character of the worker is established by the phenomenon of the laying worker, a recognized example of parthenogenesis. If a colony of bees becomes hopelessly queenless, some of the workers, even though incapable of mating, begin to lay eggs. These unfertilized eggs, however, produce only drones.

The peculiar theory of the ancients regarding the propagation of bees is not to be wondered at. First of all, it fitted in with the prevailing idea about the possibility of spontaneous generation. Then it must be remembered that it is only comparatively recently that the modern hive, which allows observation of the queen laying eggs, has been introduced. Early writers all spoke of the queen as the ruler or "king" of the hive. They were absolutely correct, however, when they stated on the strength of their observations that bees (workers) did not carnally conceive and bear offspring. Consequently, mistaking the queen, the actual mother of the hive, for a "king" and repeatedly observing workers with their heads in cells which upon inspection were found to have eggs deposited in their floor, they naturally thought these bees had deposited the eggs after gathering them from afar and carrying them to the hive in their "mouth".

Some of the early Christian writers spoke of the bee itself as a symbol of Christ born of a Virgin. An example of this is found in the Gelasian Sacramentary composed about the sixth century. (Migne: vol. LVIV. col. 1107) **This** symbolism has been discredited by modern science. But the wax of the candles used in the Liturgy, produced by the virgin bee from the flowers of the earth as a symbol of the Redeemer born of a Virgin Mother, the Fairest Flower of all

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XUM

I Talk with My Bee Inspector

Grant D. Morse

And I Learn a Thing or Two Each Time He Comes

Each year I enjoy being present when the state bee inspector examines my bees. It's almost like being a school boy again and having the thrill of taking an examination.

In many ways it is a very real examination. The inspector is chiefly concerned to determine if disease is present in my colonies, but I know that at the same time if I am "to pass" in his estimation, my colonies must be in good condition.

Being in "good condition" involves several qualities, first of which, probably, is strength. I know my bee inspector isn't very much impressed with my talent as a beekeeper unless the colonies give evidence of making good quantities of honey, or being strong enough to do so as soon as a honey flow is on.

Each year he says: "I examine a great many bees every year that seem to give their owners much satisfaction, but I know they don't make much honey."

I gather from this annual remark of his that he is primarily impressed by the ability of the beekeeper who is able to maintain colonies that can and do produce.

"No eggs here," he remarks significantly. And I know immediately that I get some credit (in his estimation) deducted for having failed to keep a producing queen in every colony. "This one appears to have swarmed out." My face falls because I know (in his thinking) he is politely accusing me of failing to keep the force of bees in that hive from dividing their numbers and thus practically eliminating production in that hive for the year.

"This one is ugly", I warn him.

He says nothing, but I observe that he blows in a few puffs of smoke at the entrance a minute or so before making any move to take off the cover. I notice, too, that he is careful to puff smoke in under the inner cover as he inserts his hive tool, then pauses again before actually taking off the inner cover.

He senses that I am noticing this detail and remarks: "You have to get smoke into the eyes of those guards before you give them any cause to leave their guard duty positions', else they'll make life miserable for you".

I note that he keeps the smoker ever ready, and takes time to give in turn a little puff or two of smoke to every two or three frames before lifting them out.

"What smoke fuel do you use?" I ask him.

"Chunks of basswood."

"Don't you like burlap", I inquire. "It has a pleasant aroma to me and adds to my enjoyment as I work with the bees."

"I don't smoke, myself," he replies, "and I find burlap smoke hurts my eyes."

(From this I'm not able to guess whether or not he is being a bit facetious and implying that I smoke terrible cigars; but I guess not, for he said the same thing last year.)

I am impressed by the manner in which he gives each frame a kind of sidewise shake to get the greater part of the bees off before lifting the frame all the way out of the hive body. The result consistently seems to be that he thereby avoids getting a great number of bees into the air—a condition that is more or less disagreeable to some men as they work. I was the more impressed by his method because it contrasts significantly with my own procedure of shaking the bees down on top of the frames, and differs even more greatly from the method employed by a good friend of mine, a large operator, who customarily shakes his bees off the frames onto the ground in front of the hive. Both of these methods have distinct advantages over my previous custom. The bee inspector's method has the advantage of not stirring up the bees so much and of keeping them from flight. My friend's method appears to have the advantage of getting the bees out of the hive with the consequence that not so many of them are in the way while the frames are being moved.

I noted with interest the care my inspector took to put the queen excluder down on top of the surplus super before setting the second-story brood chamber on it. (He had to take

off both in order to get down into the lower brood chamber.)

"If I don't do that, the queen might get into the surplus super when I didn't know it and be shut off from the brood nest when I replace the supers."

I recognized immediately the sense of that, but realized, too, that I had not always been careful to do it myself.

I wanted to save time, so I went through some of the hives after he was through examining them in order that I might cut the queen cells. He evidently observed that I was pulling out every frame in the upper super for this purpose.

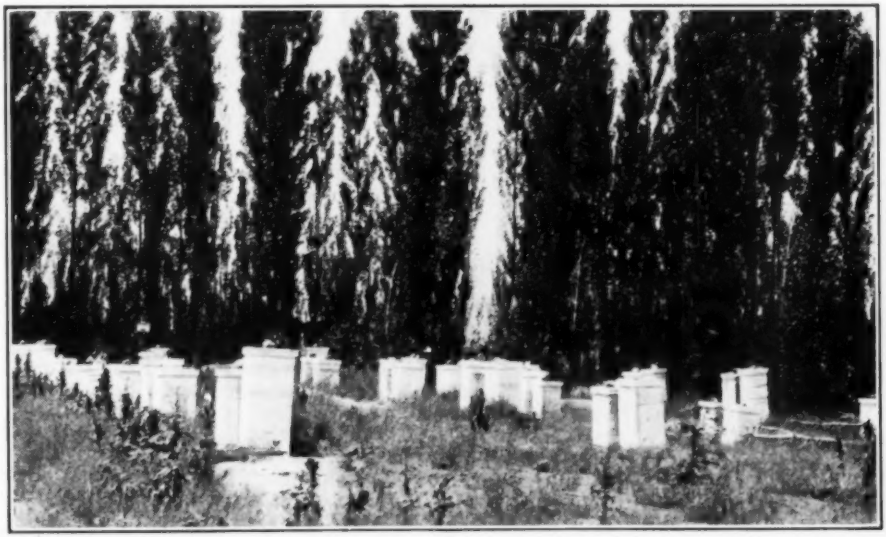
"You can save a great deal of time by merely tipping up the upper super and looking for cells on the lower edges of those upper frames", he said. (This, I find is especially true when the second story of the brood nest is a half-depth super.) Probably every experienced beekeeper already knows this, but I confess it hadn't occurred to me. To be sure, the beekeeper may in this manner occasionally skip a cell on the side of the comb in the upper super, but not too often, especially if the upper super has considerable honey in it. And the time saved is tremendous! I find that bees become angrier, too, when it is necessary to keep the hive open for the time required to examine carefully all of the twenty frames.

Every year I learn something new, as I watch my bee inspector and talk with him. I know, too, that he enjoys having the owner there as he works. I suspect that the work of inspecting can become tedious when the inspector has to work alone. I appreciate, too, that he is a bit relieved in his thinking from any fear that I, as the owner of the bees he is examining, will have any excuse to blame him for careless work, misplacing frames, mixing supers, and carelessly killing my best queens, because if I am there I know what he is doing, and he knows that I know it.

I enjoy the annual visit of my bee inspector and enjoy talking with him.

Saugerties, N. Y.

Where Poplars are Popular



An ideal comb honey apiary near Hagerman, Idaho. A good windbreak is quite essential; also the bees are forced to fly up and over.

XUM

Recent Progress in Industrial Utilization of Honey

C. A. Browne
Bureau of Chemistry and Soils, Washington, D. C.

[Dr. C. A. Browne, the writer of the subjoined paper which he read at the International meeting in Washington, D. C., has been first, last, and all the time, a warm friend of beekeepers. He cooperated with Dr. Phillips in the early days. He became head of the sugar laboratory just after the passage of the Pure Food Law in 1906 when Dr. Harvey Wiley was Chief of the Bureau of Chemistry. When Dr. Wiley resigned, Browne became Chief of the Bureau, a position that he held for many years. His early work on honey is recited in the paper below.

He has written many things for this journal and for the ABC and XYZ of Bee Culture. You will find his name frequently mentioned in the text, particularly in the preface.

This paper merits careful study by the earnest student, and it is hoped that the necessary research work can be put through. Payne and Lothrop have already done some work as shown by the pages of this journal. See Lothrop's article on page 664 of the last issue.—Editor.]

It is a great pleasure upon my part to have this opportunity of addressing a group that represents such a widespread agricultural industry as that of beekeeping. My personal interest in the chemistry and technology of honey, and particularly in methods of analyzing and detecting the adulteration of honey, goes back to the year 1906. It was just after the passage of the Pure Food Law, when, as head of the Sugar Laboratory in the Bureau of Chemistry, of which Dr. Wiley was then chief, I was called upon to cope with the problem of detecting the adulteration of honey with commercial invert sugar. This adulterant was prepared by inverting cane sugar at high temperature with dilute hydrochloric, citric or tartaric acid, and since honey itself consists largely of invert sugar, the problem presented unusual difficulties. I needed a large number of genuine honeys for purposes of comparison and it was in this emergency that Dr. Frank Phillips, then in charge of the beekeeping work of the Department, became a friend in need by placing at my disposal 100 genuine American honeys with authentic information as to their type and origin. Dr. Phillips thus laid the groundwork of Bulletin 110 of the Bureau of Chemistry upon the Chemical Analysis and Composition of American Honeys which included also a microscopical study of honey pollen by W. J. Young. This bulletin, though long out of print, is still referred to as a source of information upon the chemical composition of American honeys.

Much water has flowed under the bridge in the 30 years since this work was completed and in this time much new information about the chemical composition of honey has been acquired with which I am not wholly familiar. In fact, although maintaining an interest in the subject I ceased in 1907 to be a honey chemist, my activities in agricultural chemistry having been diverted into other fields. Other more competent successors to this work in our Bureau, however, have still carried it on and it is to one of these, Mr. R. E. Lothrop, who has done so much in arranging the exhibits of this meeting, that I am especially indebted for much of the material contained in this paper.

Bees Valued From the Standpoint of Pollination

The honey industry is a very widespread one, and affects almost every nook and corner of the United States; there being probably between 600,000 and 800,000 persons in the United States who keep bees. While the monetary value of the honey and wax produced is not great enough to allow us to class beekeeping as a major agricultural industry in the United States, this cash value nevertheless does not represent the true relative economic importance of beekeeping. It has been estimated that the annual value of beekeeping for cross-pollination purposes is between 3 and 10 times the actual cash value of the honey and beeswax produced. Other insects contribute to pollination, but it has been observed that in the early part of the season when fruit trees are in bloom, other pollenizing insects are very scarce. The actual agricultural value of domestic bees is, therefore, far greater than the value of the industry estimated in terms of the product, honey.

I might relate here that during a trip I made to Europe seven years ago, I was much impressed by reports I obtained from various apicultural authorities in Germany. During the years of the World War, bees were greatly neglected in Germany due to

the stress of war conditions. This neglect of beekeeping at that time was reflected not only in diminished production of honey, but of far greater importance, in the diminished yield of certain agricultural crops in that country, particularly fruits.

Nevertheless, beekeepers keep bees for the revenue derived from the honey and very rarely are beekeepers offered any financial inducement to make their bees available for pollination of fruit orchards and other agricultural crops. Profitable disposal of honey will always be an important factor, regardless of the exact conditions of beekeeping. A decline in per capita consumption of honey is an even more serious threat to future adequacy of pollination of agricultural crops than to reduction in income of some 800,000 beekeepers.

At the present time, the bulk of the honey produced and consumed in the United States is used on the table, principally as a spread and in home cooking. A limited quantity finds an outlet for industrial purposes. Sweetness, flavor and high caloric value have been the foremost consideration in the use of honey as a food. During recent years blander sweets in the form of syrups have come into competition with honey to a much greater extent. As a food, honey is not used in the home to the same extent as syrups. The natural physiological craving for products of higher mineral content than honey and the more rapid cloying of the appetite for sweets, produced by honey, are possible explanations for this preference. For this reason it might be well not to depend too much on increased consumption of honey for table use.

Why Honey is Valuable as a Food

On the other hand, honey has other properties which give it outstanding value for certain industrial and commercial food uses. These properties vary with the composition of the honey which, in turn, depends upon floral type. Among the factors of composition which influence the properties in question are the proportion of nonsugar constituents, the ratio of levulose to dextrose, the proportion of inorganic salts and the proportion of colloidal substances. One of the most valuable of these properties is hygroscopicity, i.e., ability to absorb and retain moisture, which is quite characteristic of honeys containing high proportions of levulose and colloidal organic substances. An investigation conducted by me 15 years ago showed that honey excelled molasses, commercial glucose and malt syrup in moisture retaining power, being fully equal in this respect to levulose, the most hygroscopic of the sugars. This property should render certain types of honey valuable for use in commercial baking, particularly for cakes and other sweet goods, as a means of retarding staling and drying out.

Possible Uses of Honey not Adapted to Table Purposes

More suitable market outlets for honey of certain types which are not well adapted to table use is necessary for the welfare of the honey industry. Such honey is frequently difficult to dispose of for table use even at low prices. Marketing of this honey for such use tends to depress the sale and price of the better grades. It is quite possible that such honey may have characteristics, other than flavor and appearance, which render it well suited for some industrial uses. The development of such new uses will be beneficial both to the honey industry and to consuming industries. In many instances in which the use of honey has been tried for commercial food and other industrial purposes, unsatisfactory results have been obtained because of failure to use honey of the proper type. The use of honey for such purposes has been handicapped and retarded because of the difference in composition and properties of various types of honey which results from the fact that it is a natural product derived from different kinds of floral nectar.

This problem cannot be solved satisfactorily by testing a miscellaneous lot of honey samples for each particular purpose. The composition of honey of different types is so distinct and influences to such a great extent the properties desired, that a chemical study of each type of honey in relation to those properties is essential in order that the type of honey most suited for each use may be properly identified, and adequate sources of supply located. Once this is done and the necessary earmarks of identifications established, consuming industries would have far less difficulty in obtaining adequate supplies of honey of suitable characteristics.

An example pointedly illustrating this very thing comes to my mind. Some time ago a large candy manu-

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XUM

Price Cutters

E. Busler

If These Could Be Eliminated Our Industry Would Be Better Off

If you want to make a beekeeper mad just start the subject of "Price-Cutters", and you will have a red-hot conversation started that may last far into the night.

Price-cutting has two sides and the opposite to price-cutting is what I call the price-hog. This last-named fellow is full of steam for higher prices even though the market doesn't warrant such prices. Dumpers are another class of salesmen that are bad, even worse than the price-cutter and price-hog. Let us now consider these three classes of honey sellers to see how they affect the local producer of honey.

The Price-Cutter

The price-cutter is the fellow that either produces or buys cheap honey and sells at just a few cents a pound less than what good honey should sell for. He may be well-known or just a fly-by-night packer who thinks that he can get by with anything just so long as he moves the honey.

This price-cutter may get his honey by paying for it with checks that come back marked "No Funds".

Strangers who drive up in new trucks and offer to take all the honey you can produce and are willing to pay what you ask and who pay by check, should be watched. It takes nerve sometimes to tell a well-mannered honey buyer that his check is no good to you and that he will have to pay cash or by certified check, but you will be ahead if you are firm along financial lines with strangers.

The worst price-cutter is a concern that bottles honey for chain stores. They take a sample of your honey, run your grade down and buy as cheaply as they can. If you sell to that kind of a firm the chances are your honey will be blended with other honey and sold as first-class table honey.

I had an experience with such a buyer a few years ago. He said my honey was of poor quality and that all he could pay was three cents per pound, I to furnish cans and cases, and pay the freight. My net price for this honey would have been less than one cent per pound. Needless to say this firm did not get my honey and I won't run another chance of getting mad by sending another sample of honey for them to run down.

Again, the price-cutter may be a small beekeeper who owns just a few hives of bees and when he sees your ad in the local paper he puts an ad in offering honey for just a few cents a pound less. I find that the best way to deal with this fellow is to buy his supply if he will sell and market it with your honey. Last fall I found an example of this fellow. He had only a thousand pounds of light amber honey. I was retailing five-pound buckets for 75c and I tried to get this beekeeper to sell likewise. He finally told me that he could not sell for that price and that he was going to cut the price to 50c per bucket. It didn't take long to figure what this would do to the local trade. I bought all he had to sell for 47c a bucket. He made more out of his honey at this price than if he had cut the price down to 50c a bucket and peddled from house to house.

How About the Price Hog?

He is the fellow that wants about twice as much as honey is really worth. He would like to fix a big price on honey and make every one live up to it. He has the finest honey in the U. S. A. and no foolin', he has pure Italian bees, and his honey is just naturally a food fit for the angels. Well, this fellow has his place in the world but we should be thankful that he doesn't have the price-fixing of honey or very little honey would be sold.

What About the Dumper?

This fellow may raise his own honey or may buy honey as cheaply as he can. I had a sample of the dumper brought home to me recently. He brought a load of honey to southern Indiana for store trade. He found the stores pretty well supplied and not wanting to truck his honey home he put the price down so that the honey moved. His prices were $1.35 per case of twelve one-pound jars. The honey was nicely packed in modern jars and

the jars were nicely labelled. I sampled the honey. It was not the best on the market but it was fairly good honey. Now, you who have been selling honey can figure out just what this man made on this honey. He would have been far ahead to have sold his honey wholesale.

Let us review the above three classes of beekeepers or packers.

Time is a great healer and the three above mentioned fellows will fall in line with the market sooner or later. The price-cutter if he be a small producer, will in all probability sell out to a more successful producer who has better marketing methods. The price-hog will fall in line with honey values so that his honey will move; and the dumper will be with us a very short time if he buys his honey; and, if he produces the honey he sells, he will probably be a dissatisfied producer and he will turn his labors to a different cause.

There is never any excuse for a honey dumper. There probably is some excuse for the price-cutter and the price-hog. Cost of production, size of crop, distance from market, and a thousand and one things make each case different.

Determine Production and Selling Costs

A man selling his product locally where he is well-known, usually gives good service, and guaranteeing his product will receive more than a stranger in said market. Said stranger may have to sell much cheaper to induce sales, and again a poor crop may cause a producer to demand a bigger price for his honey than it is really worth.

Each and every individual should attempt to figure out his production costs. If over a number of years your yield is such that you are getting ahead, and you are getting paid for your labor, all well and good; but if in the course of years you are working at a disadvantage, your crops are short and prices down, it might be best to go into some other line of business. Your success as a beekeeper will simmer down to three things; you, your location, and the market.

When I speak of markets, I mean all forms of markets for honey, whether it be for baking honey or for honey as a spread for hotcakes. And you, as a producer of honey must be up on the market, and the best way that I know of, is to become a subscriber to one or more good bee journals that run monthly market pages. Perhaps if the price-cutters and dumpers who sometimes vex us so much were members of beekeepers' associations, read bee journals and knew the markets, our marketing problem would be more satisfactory to all concerned.

Therefore, I am starting the ball to rolling by giving some gift subscription to non-subscribers of bee journals, with the hope that such literature may cause them to market their honey in a more orderly manner, thus raising my own standard of honey sales.

Rockport, Ind.

[Beekeepers must remember that in determining a selling price that will allow a reasonable profit, three factors must be considered: (1) cost of production, (2) cost of selling, (3) margin of profit. If the margin of profit is not included in the selling price beekeepers will be working for nothing.—Editor.]

Bees Need Wind Protection

In the absence of natural wind breaks, such as trees, shrubbery, or buildings, a board fence about six or eight feet high may be erected. The boards should be spaced one or two inches apart and thus the force of the wind is broken and the bees are given protection.

A Confab

Conducted by the Editors

The restoration of "A Confab" in the November, 1937, issue of Gleanings has apparently made life more worth while for quite a number of beekeepers, at least we judge so from contributions and comments already received. One beekeeper was kind enough to say that if his contribution should not appear in "Confab" that he would not be "miffed". This is the spirit we admire. Contributors may feel assured, however, that matter sent for this Department will have fair consideration and if found suitable, will appear in due time.

More About Carbolic Acid

It seems that this question of whether or not carbolic acid can be used satisfactorily for removing surplus honey is not easily disposed of. The discussion thus far has centered around the possibility of tainting the honey. Another question is raised by W. H. Hull of Vienna, Va. His question and comments follow:

Does Carbolic Acid Injure Bees?

Does carbolic acid inflict permanent injury on the queen? This question was raised by George Harrison, of Purcellville, Va., at a recent meeting of Virginia beekeepers. The question came up in his mind, he explained, when he noted that his hives were not overflowing with bees in the early part of the summer, as they formerly were. And checking back for a possible cause, the use of carbolic acid in removing honey was the only thing he could find that was different. No replies were made to this during the meeting, but afterward, in conversation, some beekeepers reported a like experience over a period of several years' time—that is, very few colonies overflowing with bees, whereas that was formerly an outstanding characteristic of all colonies in good condition during May and June, especially. In each case there had been no change in the system of management to account for this condition, except that carbolic acid had been used. Others defended this easy way of removing honey, although they stressed the importance of removing the screen as soon as possible.

Neither T. C. Asher, President of the Virginia Beekeepers' Association and a 1200-colony man, nor Henry W. Weatherford, State Beekeeping Specialist, could shed any light on the problem from their own experience. They had both rejected the carbolic acid idea at the time it was being taken up by others, preferring to continue with bee escapes. A visit to the yards of these two leaders of the craft showed no lack of populous colonies, although the honey flow had not been all that could be desired. Of course, this was later in the season than the critical period to which Mr. Harrison referred—the period during the early part of the honey flow.

The experience of others will in time answer the question of whether carbolic acid inflicts permanent injury on bees. It may affect them in much the same way that poison gas affects human beings. Many a man gassed in the war twenty years ago is still able to be about but has never fully recovered.

Meanwhile, one of the arguments in favor of carbolic acid, or, rather, one of the objections to bee escapes, seems to have been removed. It was formerly argued that putting a super of extracting combs above the bee escape permitted it to cool so much that extracting was difficult. With the general use of the hot knife, improved extractor design, and power-driven extractors, this objection no longer carries weight.

W. H. Hull,
Vienna, Va.

Now along comes the Senior Editor, E. R. Root, who has just returned from some bee meetings in Wisconsin and Illinois where this subject was up for discussion. Mr. Root's comments follow:

The question came up at the recent Wisconsin Convention about the use of carbolic acid for forcing bees out of supers. James Gwin, a well known beekeeper also connected with the Marketing Department of Wisconsin, said that not a few lots of honey in Wisconsin had to be rejected because of the strong odor of carbolic acid in the honey. He did not condemn the use of the acid when rightly used according to directions; but he cautioned that the carelessness on the part of a few might give rise to newspaper stories of "poisoned honey" and then honey would receive a body blow from which it would not soon recover.

Already too many unfavorable reports of carbolic smelling honey have come in and one comes from the largest buyer of honey on the Pacific Coast. See page 673,

November, 1937 Gleanings. It is a quick, easy way to get bees out of supers, but—

E. R. Root

Top Entrances

In last month's "Confab" we suggested as one of the topics for consideration in this department, **"Top vs. Bottom Winter Hive Entrances, or Both."** There are many angles of approach to this subject. One is brought out in a question in the "Asked and Answered" department of November, 1937, Gleanings, page 703, where the following question is asked by Carl Novak, "If I close up the bottom entrance and open the top entrance will not the bees fly out of the top entrance, and then try to get in the bottom entrance, when taking winter flights?"

T. O'B. Clouse, Nashport, Ohio, throws some light on this question in his contribution just received, which follows:

From Bottom to Top Entrance

It is probable that many of us have wondered what happens when the entrance is changed from the bottom to the top of the hive. As Carl Novak suggested on page 703, November Gleanings, the bees may go out of the top entrance and cluster at the bottom entrance,—but not when packed nor if proper precautions are taken. I "asked the bees" this last fall.

I closed the bottom entrance of a hive, using only a top entrance through two holes in the front of a super of packing material. The hive was not changed in any other way. For several nights there were clusters of bees at the lower entrance, and so I let these bees in there.

Then straw was firmly banked up against the front of the double-brood-chamber hive to keep the bees away from the lower part of the hive. The bees flew around and over this straw and discovered the top entrance which they entered.

I packed this hive several days ago in a "wire-pack" using this top entrance. The bees re-located their entrance as the appearance of the hive was changed.

Results seem to be that bees will cluster at the bottom entrance if allowed to, but will learn the new position of the top entrance if the bottom entrance is well covered. Also, a middle entrance in the top brood chamber was found to give the same results if the lower entrance was closed. Do my Italians have an exact sense of location, or, is it simply habit?

T. O'B. Clouse,
Nashport, Ohio

It seems obvious that colonies occupying two-story hives with regular bottom entrances during the fall, being changed over to top entrances late in the fall when packed for winter would become somewhat confused. If we are not mistaken some who use top winter entrances advocate leaving a very small bottom entrance. Possibly some top entrance beekeepers will have something to offer on this matter.

Cause and Cure for Early Supersedure

The above topic was also suggested in our former confab. M. N. Freeland, Buchanan, Tenn., has the following to offer:

I notice in your "Confab" that one of your topics for discussion is, "The Cause and Cure for Early Supersedure of Queens." I am giving my experience and hope it will be of some benefit.

For 18 years I have had the pleasure of raising and testing all kinds of queens. My experience is that there are only three ways of growing good queen bees. First, natural swarming. Second, supersedure. Third, queenless colonies. All three are nature's ways, also all are direct from the egg. There is no grafting done in the bee hive by the bees. The queen surely lays eggs in the queen cell cups.

Now I will try to tell why the queens are superseded so early, also, why they are of such poor quality in other ways, such as producing weak bees, bees that will not defend their hives, bees that are not good at honey gathering and wintering, and get AFB easily. My idea is this: 90% of the large queen breeders use the grafting method. Now in using the grafting method it is possible to raise a great number of queens easily, but just as long as this method is used there will never be perfect queens. I never could get queens to give me perfect satisfaction until I started to raise them direct from the egg. I have seen many queens that were raised by the grafting method that were large, fine looking and very prolific, producing lots of bees. They just didn't know how to get the nectar. However, these bees were great consumers of honey and sugar syrup, provided it was put conveniently in the hives. I want queens raised from eggs and not by the grafting method.

M. N. Freeland,
Buchanan, Tenn.

Mr. Freeland makes some pretty strong statements that will doubtless be refuted by commercial queen-breeders and those who have had experience with queen reared by the two methods mentioned.

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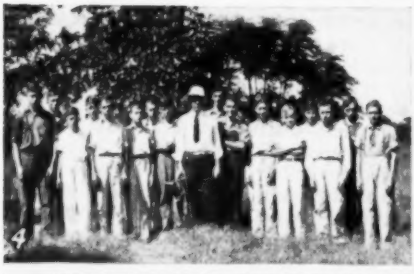
Beekeeping in South Carolina

H. H. Root



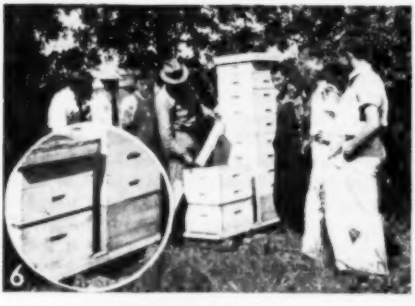
No. 1 Shed apiary of Paul E. Barr, Lexington, S. C. Made of local lumber these sheds are inexpensive. They protect the hives from sun and rain and it is easier to work with the bees.

No. 2—E. S. Prevost, State Extension Specialist in Beekeeping, and Mr. Barr. Mr. Barr says he is going to be the biggest beekeeper in South Carolina.

No. 3 William Henry Moore, Pendleton, South Carolina, a promising 4-H Club boy and already a good beekeeper. William takes his work seriously whether it is picking cotton or picking a good queen.

No. 4 R. H. Burley with his class in agriculture at Lexington High School on a visit to Mr. Barr's apiary.

No. 5 William Moore's beeyard among the pines.



No. 6 Mr. Barr gets his wet extracting combs cleaned up and unfinished comb honey completely sealed by stacking the wet combs on the back of a double-bottom.

No. 7 E. S. Prevost, State Extension Apiarist of South Carolina, has an efficient group of County Agents all of whom are interested in bees. At Mr. Prevost's left stands the diminutive County Agent of Colleton Co., L. W. Alford.

No. 8 Field demonstration of South Carolina State Association at the home of County Agent Hopkins, near Columbia.

No. 9 On September 14, 1937, the first meeting of the South Carolina state beekeepers' association was held at the Chamber of Commerce, Columbia. More than sixty were present.

From the Field of Experience

BEES PRACTICE FIRST AID

K. C. Bose

How much do bees know about first aid and artificial respiration? I am prompted to ask this question after witnessing the following incident:

During the last honey flow I was somewhat behind hand in keeping some hives at an out-apiary supplied with combs. The result, as was to be expected, was that wherever there was room a comb was built on the cover.

On one of these hives I removed the cover with comb attached and leaned it against the hive stand and proceeded to clear the super of other bits of burr comb. While doing this I noticed that the weight of the bees and honey caused this comb on the cover to fold over.

After fixing things right in the super I set about removing the comb from the cover, when on lifting the folded portion of the comb I saw the queen—one of my best ones that I intended to breed from—deeply imbedded in the under layer of comb. I quickly tapered a match-stick and carefully spread the wax around her so that she could crawl out. She did not move—dead, I concluded, and blamed myself for not looking for her on this comb before setting it down.

I held her in the hollow of my hand for fully two minutes during which time she made no movement. This strengthened the idea that she was dead. But she wasn't.

Just through curiosity I put her on top of the frames to see what the bees would do. Immediately the bees became greatly excited, they surrounded their mother, and while it would be difficult to describe what they actually did, it seemed to me as though some were pulling at her legs, others at her wings, while others fanned lustily although the effect of the smoke used when the hive was opened had long since died away. This behavior of the bees continued for about three minutes, then imagine my surprise when I saw the queen turn over (she had been placed on the frames on her back) and quietly crawl along the top of the frame for a few inches and disappear between the combs.

I inspected this hive six days later, saw the queen, but no eggs in the cells, yet no queen-cells were started.

I again inspected this hive two weeks later and found egg-laying and brood-rearing proceeding as usual. Since then I have been looking at this queen regularly but can find nothing out of the ordinary. Apparently she is none the worse for this experience.

Do you think she should still be used as a breeding queen?

Demerara, British Guiana.

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MERCHANDISING HONEY

Fred E. Kunkel

Honey is a product which though consumed, is not consumed in sufficient volume to stimulate demand to the extent where a good price can be secured. It is trite to say that price is regulated by supply and demand, because everybody knows that. But if we grasp the tail of that idea it can readily be seen that the thing to do in merchandising honey is to create demand.

The honey producer has been handicapped because of the absence of that demand. It can readily be seen that if a beekeeper can develop 100 steady repeat customers one month and 150 the next and keep on building business in that way (provided he had the honey available for sale), that presently he would have more customers than honey.

With a honey shortage prices would naturally go up. Honey eaters would be so used to having their honey that they would not like to do without it.

If the beekeeper takes his honey to a store for selling, the grocer or delicatessen has a thousand and one other items to sell and the honey is buried among them only to be dug up to supply a want announced by a customer. Honey is not aggressively merchandised. This type of merchant can never merchandise 1,001 products efficiently, even if he were inclined to do so. Naturally, the only way to stimulate demand for honey is to work on the consumer.

Honey should be in every pantry and served on every table in the home, restaurant or hotel, just as much as any other food commodity,

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yet it is bought only once in a while. There is not enough demand for it. Nothing has, in fact, been done to stimulate that demand. Out of 100 housekeepers canvassed in a certain city, it was learned that

10% never use it;
37% use honey once or twice a year;
23% bought honey about 6 times a year;
30% kept honey on hand all the time like any other grocery item.

It naturally follows that in order to merchandise honey and stimulate demand in 70% of the people of a community, that some aggressive merchandising methods must be used. How can this be done?

An organized industry can advertise just as much as "Sun-kist" oranges are being advertised, or "Ivory Soap" or "G. Washington Coffee", whether it be over the radio or in the magazines or in the local newspaper.

But the individual producer can do nothing except find customers for his product and sell it at the prevailing market price. The more new customers he can find, the more he can get for his honey.

Washington, D. C.

[It is obvious that at present there isn't enough honey produced in this country to even make a dent on the market. This year it is doubtful if the production will amount to more than one pound for each person in the U. S. A. What the industry needs is more honey, and, as Mr. Kunkle has said, we need a well organized industry to advertise and popularize our product.—Editor.]

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COMPARING NOTES ON CELLAR WINTERING

C. H. Pease

E. S. Miller's article on "Thirty Years of Cellar Wintering" in the November, 1937, Gleanings, page 667, contains considerable food for thought, and, although his experience beats mine by nearly twice the number of years, my record of results beats his. He says his "winter losses have been far less than with bees wintered outside," while mine are "far less" than that, i.e., I have not had a single loss from wintering in my cellar in fifteen years.

I am surprised that in all those thirty years Mr. Miller has not even once tried feeding sugar syrup instead of wintering on that "ample supply of fall honey." He states that he has "noted no bad effects from wintering on goldenrod and aster," yet in the first paragraph of his article he said "in our early experience we have allowed colonies to remain too long in the cellar in spring, resulting in excess moisture with dysentery and loss of colonies."

Judging from my own experience, I doubt if it was the excess moisture that caused the dysentery, because in my "early experience" the first two years that I used my cellar, water came in to a depth of over an inch all over the floor, remaining there for at least two weeks. After it subsided the cellar was reeking with dampness until after the bees went out in April, but no loss resulted.

As to fall honey for wintering bees: Valparaiso, Indiana, and Canaan, Connecticut, are in nearly the same latitude, although Mr. Miller is a trifle nearer the equator and naturally has a shorter period of confinement for his bees than we have. Our fall honey is almost never uniform and it is not safe to depend on it for wintering. I was convinced of this after the winter of 1933-'34 when a farmer beekeeper with 19 colonies, living about half a mile from us, wintered on it outside. I fed sugar syrup and put my bees in the cellar. When spring came every one of my colonies went out in perfect condition and the neighbor had 19 dead ones.

Of course, I realize that beekeepers do not like to pay good money to the sugar industry when their bees can gather their own sweet for nothing, but I was brought up to believe that it doesn't pay to "bite off your nose to spite your face." In New England, sugar is much cheaper than honey, but even at the same price, sugar is a much cheaper winter food for bees, whether they winter outside or in a cellar, because it is an insurance against dysentery and saves the bees. Even if fall honey was always uniform I don't believe any fall honey is as safe as good granulated sugar syrup.

To prove that this is not simply a pet idea of mine, here's what Morley Pettit said about it on page 434 of the July, 1927, Gleanings: "We are now selling our dark fall honey for considerably less than the cost of sugar, but the wintering value of sugar is so much greater that it will always be profitable to make up any shortage in weight of the brood chamber in the fall with sugar syrup stores." J. L. Byer wrote, in Gleanings, March, 1920, page 158: "At one apiary which I went to for the first time since last fall I noticed that two colonies with

natural stores were showing signs of dysentery, while others in the yard, all with some sugar syrup, appeared to be all right." Evidently Mr. Byer believes in sugar syrup, as in the last Gleanings (November), in his correspondence he informs us that he has 800 ten-pound pail feeders.

Mr. Miller cites two "disadvantages" of cellar wintering. First, "to be able to get extracting colonies to store enough honey below the excluder in the brood chamber." I consider this an advantage, not a disadvantage, because there is so much more room to store the sugar syrup. Second, "To carry two-story hives down and up cellar steps requires a strong back." Right you are, Mr. M., I never have done it and never will. I roll mine in on a wheelbarrow, but even if I don't have to go down and up steps I would never think of putting a two-story hive in a cellar. My bees consume, on an average, less than eight pounds of syrup during their confinement (and our confinement is longer than his), and what do they need a two-story hive for?

My rule for feeding is: Never take an ounce of honey out of the brood chamber; the vacant cells from the last emerging brood furnish storage room for enough syrup to carry them through to spring, and the honey is there for brood rearing after the syrup is used up.

I wonder if Mr. Miller knows how much of his fall honey his bees consume in the cellar. Weigh them when they go in and again when they come out in the spring, and note the interesting story this weighing tells.

I don't worry about dysentery, dampness, or any other phase of wintering; my bees have come through 100 per cent every winter for fifteen years, and I think I can do it once more—but not on fall honey.

Canaan, Conn.

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COOPERATION NEEDED FOR AFB CONTROL

Byron C. Jones

In spite of the bee inspectors and their work and the appropriations of money for this work we still have the old disease in some parts of the state. The inspectors do good work. I have no complaint to make against them. They destroy the diseased equipment and colonies and do much toward educating the beekeeper, yet in some places in the state they come back the next year to find that some of the colonies found clean the year before are now diseased. Now where does this contamination come from? To my mind it is fairly evident that the colonies have become contaminated through contact with colonies in bee trees. I have hunted bees myself and have found colonies so badly contaminated with foulbrood that they were on their last legs, so to speak. These I have always taken care of myself by way of the fire method, but I am not the only bee hunter and am sure that many of the bee hunters do not know the disease when they see it and would not be interested in destroying it if they did know it. Therefore, some trees are left with the diseased honey scattered about to be taken to the hives of the beekeeper who is trying to keep his bees clean.

Now, there is another department in this state that might render much aid toward cleaning up disease. I refer to the Gypsy Moth control, which I understand is under the Conservation Department of the state. I have been told that the scouters in this work have been given orders to map the locations of all the nests of grouse found and to send the same to the department. Now why not have them map the locations of all bee trees and send them to the department for control of American foulbrood, then, when the inspectors find disease, let one or the other of the departments cut and destroy all bee trees within a radius of two miles of the infest and thus make a real clean-up of the territory?

I can see no reason why the two departments can not cooperate to this extent and I am sure that much good could be done, slightly more employment could be given the unemployed, and much more security afforded the beekeepers.

Petersburg, N. Y.

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LETTER FROM AUSTRALIAN BEEKEEPER

Clair B. Scarfe

I find your magazine very interesting and helpful. Your country is undoubtedly leading the world in bee culture today. It seems that you have a very active and scientific Department of Agriculture that is throwing light on many of the somewhat debatable problems in beekeeping as well as entering new fields of investigation. Your leading beekeepers, too,

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seem eager to tell the world of their findings. That is not so everywhere, unfortunately.

Our biggest problem is that of finding profitable markets for our honey. The people of Australia eat about 2½ pounds of honey per head each year and could easily consume much more. We have a fine quality honey and if it were twice the price it would be cheap compared with most of our staple foods, and exceedingly cheap if its food value were taken into consideration. But we have neglected to advertise these facts and to put choice honey within reach of every potential customer.

I have solved my own problem by selling from door to door. With two assistants we serve ten thousand homes each six weeks throughout the winter. In summer honey consumption falls to 25% of winter months. In this way we sell from 1 to 1½ tons a week. Many of the farmers take 30 or 60 pounds each trip but most people buy only 2 or 7 pounds at a time. We average one sale in three houses but more than two thirds of the territory we serve have consumers of our honey, only some eat such small amounts that 2 or 3 visits a year would be enough for them.

As usual in such cases I not only sell my own honey but that of all my neighbors as well. Something like this would solve our marketing problem as a nation but there are too many producers for the number of salesmen amongst us!

Cheerio. Best wishes to Gleanings and all my American brother beekeepers.

Wirrabara, South Australia.

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A "WIRE PACK" FOR WINTERING

T. O'B. Clouse

Our apiary has plenty of open valley for a windbreak against the prevailing winds. The hives are located on the top edge of the hill.

Good packing is needed in such a location. Otherwise water runs out of the entrances or freezes up in cold weather and many bees die.

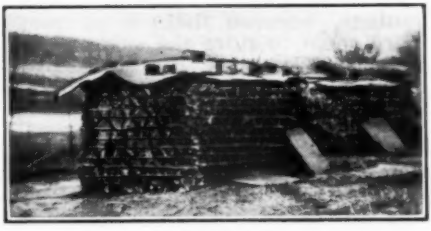
Chicken fencing does the work! We use a two-inch wire mesh of three-foot width for packing hives.

It is simple, very cheap, and needs no constructing. Packing is easy and quick.

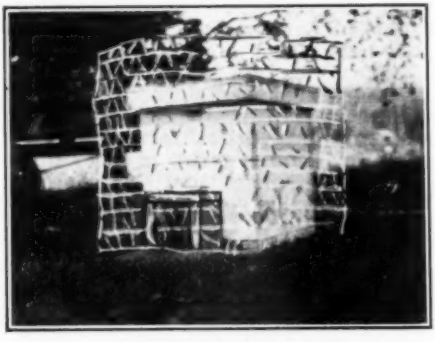
Father packed 26 hives last year and I packed six. One was lost when the queen died during the winter. We will use this method this year and try using a few top entrances for comparison with our bottom entrances.

The photographs tell the story. No. 1, packed; No. 2, ready to pack; No. 3, close-up of entrance. Measurements given are approximate only. One's climate and conditions must be taken into consideration.

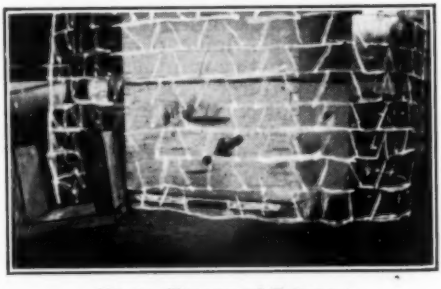
The hives do not have to be moved. Simply open the bee-escape hole of the inner cover and place four or more folded gunny sacks on the inner cover to absorb the moisture. Replace the cover. The cover may be left off if packing is covered with roofing. (A feed store gives me gunny sacks, with holes in them, free.)



No. 1—Packed



No. 2—Ready to pack



No. 3—Close-up of Entrance

Next, place the entrance cleat in the hive using the largest opening.

Then bore a hole about three-fourths inch in diameter under the hand-hold in the lower brood chamber. See photo No. 3. (All holes may be bored in the hives first for speed and do not have to be re-bored each year.) We place the slate on the bottom board extending out under the wire for the bees to light on. They seldom do. See photo No. 3. The entrance guard on the left of the hive is made of three pieces of board nailed together in a "U" shape.

Cut the wire eight or ten feet long to suit the packing and place around the hive. See photo's No. 2 and 3. Hook the wire together at the top, bottom and middle. Put the entrance guard in place and pack firmly part way up the hive on back and sides. Then pack tightly around the entrance guard and at the corners to the proper thickness. If double brood chambers are used one can lift up on the wire which will stretch. Finish filling and cover the top well with packing, rounding it up well to shed the rain better. We use about twelve inches of packing on all sides.

Next, lay on roofing or some covering and tie down to the wire with binder twine. It takes only a few minutes of time to pack a hive.

To unpack, grab the wire each side of the fastenings on the back and yank it apart. Lift off the wire and pile up several lengths of wire to roll together for the summer.

If the main bottom entrance becomes clogged with dead bees, snow or ice, the auger hole below the hand hold provides a safe emergency entrance. Bees usually fly through the wire directly to this entrance. The wind seems to keep the packing dry, but it will be wet if no roof is used. Bees have not drifted, though the hives are very close together.

The packing can be used till it rots and the rest of the material will last for many years, and all the beekeeper need construct is the entrance guards from scrap lumber. We usually place a cork in the emergency hole when unpacking.

Nashport, Ohio.

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COMMENTS ON CURRENT ITEMS

J. F. Dunn

Shoot 'Em Down

Mr. Wilburt C. Wahl in November Gleanings tells of his experience in raising more than one queen in a super. We have had a similar result. A few years ago while assisting the then acting Provincial Apiarist at the winter short course at the O. A. C., Guelph, we showed to the students a super containing four divisions containing as many nuclei and a queen cell. There were separate mating entrances on the two sides and front of each partition. The Provincial Apiarist asked me to leave it at the college and I did so. As in Mr. Wahl's case the experiment was a failure, and for the same reasons Mr. Wahl says those reinforced nuclei would often park on an inaccessible limb. With us, swarms with young queens alight high up and very often on the limb of a tall tree and they cannot be taken with a ladder. That needn't bother any good rifle shot. The bullet strikes the limb a sledge hammer blow and down tumbles the bees and they are put in the prepared hive.

Top Entrance

About the top entrance for wintering which seems to be a favorite topic now, we do not like to give an opinion on something we have never tried. We use bottom entrances for winter, the front closure turned over to give an entrance ⅜"x3½". For the storing season we remove the entrance block giving an entrance one inch high and the width of the hive. To get rid of the danger of dead bees blocking the winter entrance we turn the entrance-reducer block over. This gives an entrance at the top edge instead of the bottom. We shove the block in until it is one-half inch in from the front of the hive. If the colony is strong we never worry about upward ventilation and prefer the cover sealed tightly. The little moisture the hive may contain will be taken care of by the bees and we think they are very glad to get it.

Mouse Guards

Super springs are just the thing for fastening them on. If you don't have them use a piece of a clock spring.

Capping Melter

There are many varieties of capping melters. Mr. Kelty's, as described by Mr. Deyell, looks like one of the most complete and no doubt one of the very best. Ours is one of the older types but it gets all of the honey out and puts the honey on one side of the settling tank, the wax on the other. The honey is darkened though but as we have very little dark honey we can readily dispose of that from the capping melter for vinegar and for anti-freeze in radiators.

Ridgway, Ont.

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Editorials

Bee Inspectors Not Now Regarded as Enemies

The time was when a bee inspector was regarded as an unnecessary evil, a nuisance and an enemy, one who was "sticking his nose into other peoples' business." Sometimes he was met with a shotgun or a pitch fork. That day has now gone by. If the inspector is diplomatic, as most of them are, he is more than welcome, is allowed to go over all the bees and if disease is found, allowed to burn without a protest. In addition, he is given a good dinner.

This comes about because the inspector is not only acting in the capacity of cleaning up disease, but is an instructor, a real friend who tells Mr. Beekeeper how to winter his bees, and best of all, how to get a crop.

In short, if it were not for our system of bee inspection in most of the states, beekeeping would be impossible. AFB could and would destroy in short order all the bees of a continent.

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"Indiana Bees in a Honey of a Fix"—A Warning

This is the heading for a breezy bee story that appeared in one of the Indianapolis papers recently. It seems that J. E. Starkey, State Bee Inspector for Indiana, sent out a circular warning beekeepers against letting their bees starve this winter. He had been all over the state in the course of his professional duties and found that not only had the bees gathered no surplus honey from the clover but had likewise failed to get any honey from fall flowers. The reporter going over this timely warning felt it incumbent to help out Mr. Starkey by making up a story of her own. We have not room to print it here but it is sufficient to say that it brought many a laugh and it was not far from the truth when she headed her story by saying the "Indiana Bees Were in a Honey of a Fix."

If all the rest of the Eastern States had had a fall crop we might laugh, too, at the expense of the Indiana beekeepers. But with the exception of the State of New York which had a big buckwheat crop, there are other Eastern States that are in the same "honey fix" and will be, unless fed sugar syrup or given a reserve of combs of honey from the summer crop.

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Top Entrances—Too Large or Too Small

In-between-sessions talk at the Wisconsin and Illinois conventions reveals that top entrances may be too large or too small. A just-right size is dependent on the size of the colony and the severity of the winter. It is surprising how popular top entrances are in the extreme north where one would say they should not be used.

Said one North Dakota beekeeper to the Senior Editor; "If the top entrance is too small it will clog up with frost crystals. If too large it may kill the colony because it is too much of a good thing. The problem" he continued "is to get rid of the moisture. If the clustering room is dry the cluster will stand more cold than a heavily packed colony that has moisture in the cluster space."

Others said that the reason top entrances failed years ago was because they were too large with no corner or baffle to break the force of the wind.

As Gleanings has said before, stick to your old method of wintering and try only a few colonies with top entrances not larger than ⅜ inch deep by three inches long, but be sure to have a corner or a baffle to prevent cold air from blowing directly on the cluster.

Top entrances find favor where there are deep snows that thaw and freeze up the bottom opening. This means the death of a colony. Again, in milder climates the bottom entrances when restricted become clogged with dead bees.

Experiments with top entrances are being carried on at the Bee Culture Laboratories, particularly at Laramie, Wyo. The wise beekeeper will let the Government do the experimenting. We must not be carried away by the present hullabaloo of top entrances. Go slow until the Government speaks.

The same may be said of packing and the other extreme of no packing. Stick to what you have been doing, if it has been giving you good results.

Do Beekeepers Really Use Honey? During the World War when it was impossible to buy all the sugar we wanted and it was rationed out, one and one-half pounds to each purchaser at 30c per pound, many beekeepers were forced to use honey exclusively as a sweetener. At present with the price of sugar practically on a par with honey prices in quantity lots, beekeepers are using considerable sugar.

If all beekeepers would banish the sugar bowl from their tables and use honey exclusively they would be setting a good example for others and would strengthen the demand for honey.

It is not uncommon to visit a beekeeper who does not serve or use honey regularly on his table. Occasionally a beekeepers' banquet is served without honey. We have asked for a show of hands at bee meetings of those who use honey regularly and have been surprised at the relatively small percentage of honey users.

If we, as beekeepers, do not use our own product how can we expect others not connected with the industry to use it?

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The New Plan for Financing the Institute On page 621 of the October number and again on page 660 of the last issue we explained the new, or California, plan of financing the American Honey Institute, by which the producer authorizes the buyer or packer to deduct from the amount to be sent to him, three (3) cents on each case of 120 pounds of extracted honey and one (1) cent on each case of comb honey; the proceeds from such collection to go to the American Honey Institute. This three cents per case is not 3% on the honey but only 3/10 of one percent on the total shipment of honey, assuming that the average price were 10 cents per pound. In car lots the price would be around 7 cents.

If most of the big packers join in the plan, as is now practically assured, it will raise an ample amount to be used to advertise and exploit to the public the uses of honey as a food.

A Possible Crisis Ahead

Unfortunately this new plan of three cents per case cannot get into full operation for a year or more, or not earlier than September next, because the crop this year was the shortest in history, and because it was practically all sold before this plan was ever considered. This means that the **old** plan of financing the Institute will have to continue. This was based on a dollar a ton on all honey produced, with a minimum of one dollar for the small producer.

To help meet this situation, the most of the larger donors, realizing that the short crop would make collections slow and difficult, decided to double their former pledges, the proceeds from which would be available for 1938. But this alone will not carry the Institute. Similar action must be taken by some of the large producers and packers, or the splendid work of the Institute now under way will have to be given up with a probable curtailment of the staff that has worked so hard and faithfully. We should, in addition, have the prompt renewal of the dollar a ton pledges. Some have forgotten to pay in for 1936 and 1937.

The senior editor has made contacts with some of the largest distributors and packers of honey in the United States. Others of the Institute have seen some of the rest. They are all for the plan, provided that certain necessary details can be worked out.

It is to be hoped that before 1938 rolls around funds will be pouring in. From a recent personal survey of the Institute, we are convinced that it has reached the peak of its best work. It would be a most serious mistake to have this work discontinued for even six months. The danger is that we would lose some or all of our staff.

Mr. Beekeeper, this is your work as well as that of the bee supply manufacturers.

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Prompt Shipment Essential of Bee Orders In this month's N. E. W. S. department (page 752) R. M. Pugh, Provincial Apiarist for Saskatchewan, Canada, offers some timely suggestions to bee and queen shippers and these suggestions will doubtless be taken in the spirit in which they are offered.

It seems probable that the demand for packages and queens for next spring delivery may exceed any previous season's demand. In some regions weather conditions have not

been favorable for fall brood-rearing and the gathering of adequate winter stores and therefore a rather heavy winter loss may result. Clovers look promising for the coming season and beekeepers with empty hives will stock them with packages.

Package bees and queen shippers will doubtless work harder than ever to give quality and service this coming season. Those ordering bees should get their orders placed early so that shipments may be placed on schedule, so far as this is humanly possible. Producing and shipping bees and queens is not all sunshine. Many things can and do happen to prevent shipments being made on schedule. Unfavorable weather is the worst enemy of the shipper.

The bee and queen shipper is rendering a valuable service to our industry, as is also the honey producer. Each is dependent on the other for success. An intelligent understanding of each other's problems will help to make the coming season successful.

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More Discussion Needed on Bee Behavior If we look into the bee journals of a few decades ago, we will find a considerable part of those issues given over to discussions on bee behavior, apiary management, swarm control, wintering and such matters. Also, the topics presented at bee conventions during that period had to do largely with bee behavior.

During the past decade the discussions at bee meetings, also articles in bee journals have centered largely around the marketing of honey and disease control. Such discussions have doubtless been justified. However, during the past few years in visiting bee meetings over the country we have noted a gradual trend of discussions towards bee behavior. There has recently been an increasing number of articles in bee journals along this line and this is as it should be.

After all, success in beekeeping depends to a great extent on a more thorough understanding of bee behavior. Frequently we may theorize about beekeeping methods, as to whether or not they will work. If we would go to the apiary and find out what the bees have to say about our theories we would progress more rapidly. We, as beekeepers, need to become more familiar with the fundamental principles of beekeeping which involve a more thorough knowledge of bee behavior.

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Greatly Exaggerated Mark Twain once said, referring to an nouncement in the paper to the effect that he was dead, "Well, all I've got to say about it is that its greatly exaggerated." The Senior Editor does not pretend to stand in the shoes of Mark Twain, or any other celebrity, but when he read the heading which seems to have been broadcast in the papers of the West, "Wanted—Hairless Man to Act as Roost for Bees", he stopped and read it. The first paragraph is O. K. but the second paragraph where it says, "I can pour the bees in a hat and slam the hat on the man's head with no discomfort to the bees or the bald one", is "greatly exaggerated."

No bee demonstrator can put a hat full of bees on his head and "slam" it on without most disastrous results. When a hat literally covered with bees is put on the head, it is let down gently, gradually, crowding the bees out of the way, and this is what was done in the demonstration of live bee handling back of the White House in Washington, D. C., during the recent meeting. The following is the rest of the story which has to be taken with some degree of allowance.

WANTED—HAIRLESS MAN TO ACT AS ROOST FOR BEES

WASHINGTON, Oct. 26.— (A. P.)—A mild appearing man named E. R. Root buzzed through the International Beekeepers conference Tuesday looking for a baldheaded man and a flock of fighting bees.

"I want to prove," he said, "that I can pour the bees in a hat and slam the hat on the man's head with no discomfort to bees or the bald one."

This little trick, he hastened to add, is only act one of his apiary acrobatics. The rest is:

Act Two—Whipping off the hat, which will leave the bees supported solely and serenely by baldness.

Act Three—Combing a part on either side or in the middle of this live bee toupee.

"I call it," he added, "the bee in the bonnet."

Root's trick is on the program as a highlight of the three-day meeting.

To preclude the possibility of the bee-man getting trained bees, Root called on the government.

"I want mean, cross bees," he explained.

"You'll get them," said J. I. Hambleton of the agriculture department. "We've got some that wouldn't stop at trying to sting a battleship."

Root said that as an epilog to his exhibition he will cover his cheeks—or somebody else's—with bees, and then shave them off.

He wants to show that bees, when handled properly, are no more harmful to man than are butterflies.

Root comes from Medina, Ohio, which, as an observer remarked, "if his tricks don't work, isn't far enough."

Spinster Jane Says:

When I was a youngster, I could scarcely wait for the years to pass until I grew up. How slowly they went! And now, how fast they fly! A sure sign we are growing old, I'll say. And Christmas drawing very near again, when it seems such a short time since last Christmas.

Those of you who have children in your homes, for this children's day of days, are lucky indeed. Without them, no matter how beautiful the gifts you grown-ups may get, the day lacks some vital thing.

Giving is Better than Receiving

Won't these unfortunate grown-ups borrow a few for the day? Borrow those who are needy and friendless, if possible. Go to the orphanages, and to the very poor. It means so much to them when Santa fails them, so why not play Santa? In making them happy, you will be much happier yourself. If you have lost a child, if there is a vacant chair this year in your home, fold your sorrow carefully away for this one wonderful day, and give your best to someone who sorely needs it. You will find yourself imbued with fresh courage to face the coming year with whatever it may bring of joy or sorrow, success or failure.

Listen to these words, from the Book of Books,—

"Thou shalt love thy neighbor as thyself."

"And whosoever shall give to drink, unto one of these little ones, a cup of cold water, only in the name of a disciple, verily I say unto you, he shall in no wise lose his reward."

"Inasmuch as ye have done it unto one of the least of these, my brethren, ye have done it unto me."

"And whoso shall receive one such little child in my name, receiveth me."

The only time I really wish I were wealthy, is when Christmas comes and I see so many I would like to help to a happier day, and my biggest comfort lies in the words of an old Scotchman who once said the good Lord knew our hearts, and one day would give us credit for all the pennies "we long to gie."

Bleak, cold, November is here, and not a bee ventures outside the hive. They are contentedly clustered where food is plentiful and handy, doing their share to generate warmth, until the welcome springtime.

I believe every beekeeper in Canada is looking forward to a better season, next year. "Hope springs eternal in the human breast," especially if that human keeps bees.

Bees in Abyssinia

Not long ago, I spent an afternoon with a missionary nurse, recently returned from Abyssinia. Of course I asked all sorts of questions about the Ethiopians, re their customs, beliefs, superstitions, etc., and in the course of our talk, I told of the folk at home gathering wild grapes to make sweet wine for communion purposes, and asked just what sort of wine they used at the mission stations in Ethiopia. The answer surprised me. It was, "We use a sort of wine made from honey-water."

"What kind of hives do they use for their bees there?" was my next query, and she answered, "They don't keep bees. These are wild bees." "What are these bees like?"—I was quite curious. "Just like the bees in this country," the little nurse replied.

Someone must keep bees somewhere in those districts, I feel sure, else how did those wild bees get there in the first place? An escaping swarm would have no difficulty living through an African winter, and swarms could easily keep migrating, either northward or southward, year after year.

Someone can possibly satisfy my curiosity as to where those bees possibly came from, or do they originate there?

Honey on Every Table

Just now the members of our Women's Institute are taking a most interesting course in home economics, viz., planning and preparing meals. Our instructor has spent many years in this work, and is very learned in food values, vitamins, etc., so at last I have a chance to ask her innumerable questions about honey, and why such a valuable food is given so little

(continued on page 765)

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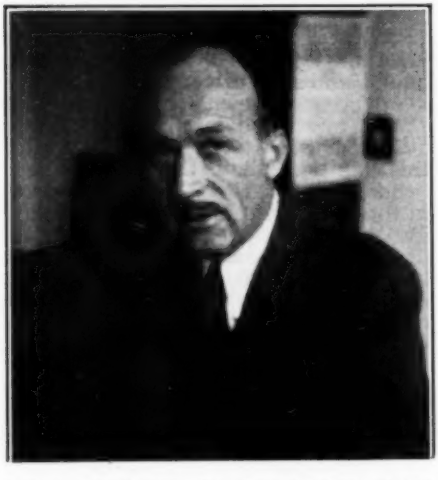
International Beekeepers' Conference [illegible]ington

The Washington Meeting

Some Highlights as Gleaned by the Editors



Jas. I. Hambleton, the generalissimo of the scientific bee world in the United States

The International Beekeepers' Conference held in Washington, D. C., October 25 to 27, will go down in beekeeping history as one of the most outstanding meetings ever held. To record the details of the meeting would be impossible in the space available. We shall try to bring our readers a few of the highlights.

Early during the morning of October 25 the lobby of the Washington Hotel became a veritable bee hive of activity. Beekeepers from all over the U. S. A. and Canada met in groups and exchanged greetings. The weather was ideal, neither too hot nor too cold. Visitors kept arriving during the day by train, bus, plane, boat and auto. It is possible some hitch-hiked. The meeting afforded an opportunity to visit the nation's capital, and what a treat to view Washington in all of her autumnal glory.

The registration committee was kept busy most of the opening day labeling visitors from thirty-six states and three provinces of Canada. It is estimated that the total attendance almost reached the 500 mark.

Sessions were held in the Hall of Nations of the Hotel. This spacious hall also afforded quarters in its wings for the exhibits of the honey cookery contest sponsored by the American Honey Institute, as well as the unusual exhibit of honeys from various countries.

The six national organizations participating in this conference were The American Honey Producers' League, American Honey Institute, Apiary Inspectors of America, Na-

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ence ington, D. C., on October 25 to 27, 1937

tional Ladies' Auxiliary, Queen Breeders and Package Shippers and Southern Beekeeping Conference.

The forenoon of the opening day was devoted largely to the regular annual meetings and business sessions of the Apiary Inspectors of America and Southern Beekeepers' Conference.

R. E. Foster, president of the Apiary Inspectors, presided at the opening session. Mr. Jas. E. Starkey, Secretary, presented a full report on the activities of this organization during the year. Mr. Foster commented on the accomplishments, the problems, and the future of the organization.

Then followed the business session of the Southern Beekeeping Conference with President E. S. Prevost in the chair and A. V. Dowling, Secretary. Mr. Prevost mentioned the splendid cooperation among Southern beekeepers during the past year and need for further work in developing the program of the conference.

The afternoon session was under the direction of the American Honey Producers' League. Chas. A. Reese, president, in his address reviewed briefly the history of the organization and some of its accomplishments. He made special reference to the semi-monthly reports on markets and crop conditions tabulated by Harold J. Clay. Mr. Reese said that the soil conservation program is bound to benefit beekeeping, also that overstocking apiary sites, even in good beekeeping localities, need not become a problem for some time to come.

Mr. W. E. Anderson, State Inspector for Louisiana, made a special plea for a bee laboratory in the North. He was appointed as chairman of a committee to make an appeal for this laboratory and apiary equipment necessary. The bee shippers of the South are willing to furnish the bees and queens for such an apiary if the northern beekeepers will provide the hives.

H. H. Root in his talk, "What of the Future," said in spite of the recent decline in the production of comb honey that on account of its beauty and attractiveness it is needed today more than ever before to advertise honey produced in other forms.

"A Search for Disease Resistant Bees" was the subject of Mr. H. C. Dadant's talk in which he reviewed the work now being done by Federal and State organizations. Beekeepers must not become impatient for quick results. Time is needed to carry out experiments now under way. It is hoped that a highly resistant strain may yet be developed.

Mr. C. B. Gooderham, Dominion of Canada Apiarist from Ottawa, mentioned the spotted condition of Canadian honey crops which is about 50% of last year's. Also, he referred

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Twenty-four Speakers at the Washington Meeting

No. 1, Richard Barclay, of Riverton, New Jersey; No. 2, Jas. E. Starkey, Secretary Apiary Inspectors of America, Indianapolis, Ind.; No. 3, R. E. Foster, State Apiary Inspector for Florida and President of Apiary Inspectors of America, Gainesville, Fla.; No. 4, Geo. W. Bohne, President Louisiana Beekeepers' Association, Luling, La.; No. 5, E. S. Prevost, State Apiarist of South Carolina, and President of Southern Conference, Clemson, S. C.; No. 6, A. V. Dowling, Secretary Southern Conference, Valdosta, Ga.; No. 7, H. C. Dadant, of Dadant & Sons, Hamilton, Ills.; No. 8, C. B. Gooderham, Dominion Apiarist, Ottawa, Canada; No. 9, S. A. Rohrer, Asst. Chief, Bureau of Entomology, Washington, D. C.; No. 10, Kenneth Hawkins, of the G. B. Lewis Co., Water-

town, Wis.; No. 11, Dr. Eugene C. Auchter, Asst. Chief, Bureau of Plant Industry, Washington, D. C.; No. 12, Dr. C. W. Kitchen, Asst. Chief, Bureau of Agricultural Economics, Washington, D. C.; No. 13, R. E. Lothrop, U. S. Bureau of Chemistry and Soils, Washington, D. C.; No. 14, Dr. C. A. Browne, former Chief of the Bureau of Chemistry, Principal Chemist in Charge, U. S. Bureau of Chemistry and Soils, Washington, D. C.; No. 15, J. M. Robinson, Managing Director, Queen Breeders and Package Shippers, Auburn, Ala.; No. 16, W. E. Anderson, State Entomologist and State Bee Inspector, Baton Rouge, La.; No. 17, E. C. Martin, Assistant to Dr. E. J. Dyce, Ontario Agricultural College, Guelph, Ont.; No. 18, Prof. R. H. Kelty, President American Honey Institute, Lansing, Mich.; No. 19, Dr. W. E. Braithwaite, Div. of Simplified Practice, National Bureau of Standards, Washington, D. C.; No. 20, Miss Annette Snapper, Director of Consumer Education for Premier-Pabst Corporation, Milwaukee, Wisconsin; No. 21, Harold J. Clay, Marketing Specialist, Bureau of Agricultural Economics, Washington, D. C.; No. 22, E. G. Carr, former State Bee Inspector, of Pennington, N. J.; No. 23, Dr. W. S. Frisbee, Chairman Food Standards Committee, Washington, D. C.; No. 24, Thos. W. Burleson, of Waxahachie, Texas.

to strict honey grading rules observed throughout the Dominion.

Kenneth Hawkins of the G. B. Lewis Co., in talking on "Weak Links of Our Industry", does not favor individual beekeepers marketing their honey. Such practice, he believes, tends to lower the quality of honey. Producing and marketing honey are two distinct kinds of business. Honey should be prepared for market at regional processing plants.

Queen Breeders and Package Shippers

J. M. Robinson, Managing Director of the Control Committee, occupied the chair during this session in the absence of the regular chairman W. E. Harrell of Alabama. Mr. Robinson's address, "Using Honeybees", gave us much food for thought and a fresh approach to the marvelous possibilities of our industry. There is, and must be, intelligent and friendly cooperation between producers of bees and queens and honey producers in order to attain maximum success.

Apiary Inspectors of America

This organization, with R. E. Foster as President for the past year, has made a definite contribution to beekeeping. Mr. Foster in outlining the objectives of the organization stressed the importance of burning disease on the spot. He also sounded a note of caution in regard to publishing arti-

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cles on disease eradication. Such items for newspapers, unless they are carefully edited before going to press are likely to be misconstrued and may do beekeeping more harm than good.

Chairman Foster presented S. A. Rohrer of the Bureau of Entomology and Plant Quarantine of Washington, D. C., who reviewed the work of this organization from its meager beginning early this century under the direction of Frank Benton. He was succeeded by Dr. E. F. Phillips who, during his long term of service did such excellent work. He, in turn, was succeeded by James I. Hambleton in 1924. Mr. Hambleton established three field laboratories, the first in 1925 at Laramie, Wyoming under A. P. Sturtevant, the second in 1928 in Baton Rouge, Louisiana, under Warren Whitcombe, and the third in 1931 at Davis, California, under Frank E. Todd. The main office, formerly in Washington, D. C., was moved to Beltsville, Maryland, in 1935.

The next speaker was Dr. C. A. Browne, principal chemist in charge of Research, Bureau of Chemistry and Soils of the U. S. Department of Agriculture. Dr. Browne's talk, "Recent Progress in the Industrial Utilization of Honey", was so worth while that it is appearing in two installments, beginning with this issue, page 728.

C. W. Kitchen, Assistant Chief, Bureau of Agricultural Economics, gave us an insight into the workings of that Bureau. Three thousand reporters send in data without pay. Harold J. Clay sends out 600 blanks twice a month to beekeepers over the country for crop reports and other information, which, when tabulated, is of great importance to our industry. The sheet put out yearly, giving number of colonies per state and the average per colony production as well as total amount of honey produced in this country is available and should be studied carefully.

(To be continued)

Conference on Bee-Breeding

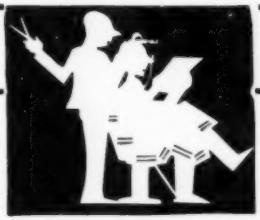
A conference devoted to bee-breeding, the first of its kind in the New World, was held in Washington, D. C., on July 14 and 15, by the United States Department of Agriculture. It marked the first occasion in this country when both trained beekeepers and geneticists met together to discuss various phases of bee-breeding. Those attending the meeting were: Dr. L. M. Bertholf, Western Maryland College; Dr. L. J. Cole, and Harry H. Laidlaw, Jr., University of Wisconsin; E. J. McNay, Kansas State College; Prof. F. B. Meacham, North Carolina State College; Dr. L. R. Watson, Guggenheim Fellow, Alfred University; Dr. P. W. Whiting, University of Pennsylvania; and Dr. W. V. Lambert, Bureau of Animal Industry, U. S. Department of Agriculture. Besides Mr. J. I. Hambleton, others present from the Division of Bee Culture were Dr. C. E. Burnside, Dr. Otto Mackensen, and W. J. Nolan. Mr. Lee A. Strong, Chief of the Bureau, gave a brief welcome on the opening day, while Mr. A. S. Hoyt and Mr. S. A. Rohrer, Assistant Chiefs, spent a short time with the conferees on the succeeding day. Mr. Nolan presided at all sessions of the conference.

During the conference the general setting of the bee-breeding problem was set forth not only from the standpoint of what has already been accomplished with the bee itself but also with other hymenopterous forms. The subject of matings, both natural and artificial, was reviewed, as well as what characters could best be utilized in breeding. The discussion of characters included those already available and also the possibility of using induced mutations. Other topics covered were rearing and maintaining stock; procuring and using samples; making measurements and records; and the roles that the Department of Agriculture, other institutions, and various individuals can play in working together on a general bee-breeding program.

Professor Cole contributed much of value to the discussions because of his long experience with the problem of improving various kinds of farm animals by selective breeding. A resume by Doctor Whiting of what has been accomplished by himself and associates with the hymenopterous form **Habrobracon juglandis,** a parasitic wasp, was of great interest.

(Continued on page 764)

Just News



"American Foul Brood Sterilization Experiments" is the title of a bulletin by Erdman Braun, of the Dominion Experimental Farm, Brandon, Manitoba. It came off the press in July, 1937, and contains timely information covering experiments conducted during the years 1931-1935. The findings of Mr. Braun are quite comparable with those of A. P. Sturtevant of the Bureau of Entomology, Washington, D. C., found in circular 284 entitled, "The Sterilization of American Foulbrood Combs."

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The annual convention of the Empire State Honey Producers' Association will be held at the Ten Eyck Hotel at Albany, New York, Friday and Saturday, December 3 and 4, 1937. An excellent program has been arranged, including such prominent speakers as Jas. I. Hambleton of Washington, D. C.; H. H. Root of Medina, Ohio; Dr. E. F. Phillips and Prof. Geo. H. Rea of Ithaca, N. Y.; and others. All beekeepers are invited to attend. These annual get-togethers are for the benefit of all beekeepers

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Starting Friday, Dec. 3 at 3:00 P. M., the University of Illinois over its station WILL will inaugurate an extended series of weekly 12 minute talks on the subject of Bees and Beekeeping in Illinois. Professor V. G. Milum, Apiculturist of the Department of Entomology will explain the behavior of the bee colony followed by discussions of the fundamentals and principles of beekeeping practices as the series progress. Station WILL operates on a frequency of 580 kilocycles.

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A one-day bee school will be held in the Community Rooms of the Romeo Savings Bank, Romeo, Mich., on Saturday, December 4. This will be for all interested beekeepers from Macomb, St. Clair, Oakland and Lapeer Counties. R. H. Kelty, Extension Apiarist, Michigan State College, will show a five-reel movie on beekeeping and discuss the following subjects: Wintering Bees; Package Bee Management; Swarm Control; Foulbrood Control; Honey Marketing. V. E. Mock, State Apiary Inspector, will also attend this meeting to answer questions regarding disease eradication problems. This meeting will start at 10:00 A. M.

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The third edition of "100 Honey Helpings" a 32-page booklet just off the press, contains a marvelous fund of information on honey and its various uses, also approved recipes thoroughly tested, not only in the Institute testing kitchen but also in the kitchens of many food companies. The price is 10c, obtainable at American Honey Institute, Madison, Wisc.

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According to reports submitted to the Department of National Revenue, Customs Division, Ottawa, Canada, on the values of imports of bees for all of the provinces during April, May, and June of 1936 and the same months during 1937, the total value of the 1936 importations was $174,652, and the value of 1937 importations was $192,168, a gain of $17,516.

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The Agricultural Adjustment Administration announces a public hearing to be held at 9:30 A. M. on Dec. 6, 1937, in the Monteleone Hotel, New Orleans, La., to consider a proposed marketing agreement and order for the regulation of interstate and foreign commerce in package bees produced in the U. S. A. The agreement and order would replace a marketing agreement and program in effect since May, 1934. The marketing agreement program provides for a control committee of six members to administer the agreement and order and to represent the bee and queen shippers.

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Mr. Ralph Benton, son of the late Frank Benton, succeeds George W. York in the editorial duties of "Bees and Honey". Mr. Benton is a commercial honey producer and queen breeder, and combines scientific training with practical experience. Mrs. Grace W. York will continue on the staff as advertising and circulation manager.

From North, East, West and South

NORTHERN CALIFORNIA, Nov. 2.

Weather: We have had one rain in October and this gives us the privilege of saying the usual long dry spell is broken and soon the grass will be green. Then for the next three months we may expect more rain, giving the wild flowers and fruit blossoms a chance for a start. Since our first rain the weather has been clear and warm.

Honey Crop: The honey crop of 1937 is in the cans. The result is discouraging to many beekeepers. The crop is spotty; prices for honey are low—lower than a year ago. The beekeeper who has a crop is better off than his neighbor who did not get a crop. The question as to why the market price is so low is beyond our ability to answer.

Why one beekeeper should have a crop and his neighbor none is puzzling to many beekeepers. We have in mind, for example, a beekeeper who placed his bees in the valley just out of the sage district; another put his bees on the side of the mountain in the midst of the sage. The sun shone in the valley and the bees got a crop. The bees on the side of the mountain were in the fog and could not leave their hives. The result was no crop.

Miscellaneous: There are other interesting experiences but the one we think should be given a lot of attention on the part of beekeepers is to see that their bees are put away for the winter with a good queen, plenty of young bees and plenty of stores.

Here in the eucalyptus district of the Bay region we will have too many bees. Beekeepers seem to forget that the unusually cold weather of a few years ago killed many of the trees and that many have been cut for wood. Just when the remaining groves were coming back and promised well for the future a fierce forest fire this summer destroyed acres of trees.

Most of us agree that the beekeepers' New Year begins in late summer and the up-to-date beekeeper will have his bees ready when the spring honey flow comes on. In some of our territory that time is late January and early February.

More of our beekeepers each year are giving time to the study of the importance of pollen as a winter food. Some report that colonies with an over-supply of pollen the past season produced the best crops of honey.

We must repeat that we have several timely subjects for our coming convention. We have every prospect for an unusual attendance and a better than usual study for the future.—Carv W. Hartman, Oakland, Calif.

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SOUTHERN CALIFORNIA, Nov. 4.

Weather: Today, November 4th, the sun *is* shining and the most beautiful fall weather is with us, with no signs of rain. October passed without rain in this region. Warm to hot days were the rule. Bees during this period get into as nearly a broodless condition as they ever do in our country. With a colony well supplied with winter stores, cool days and chilly nights during November and December make for an excellent condition to start the new year.

Honey Crop: The question is often asked, how does the crop compare with that of 1936? When we say 150 to 200 per cent it does not give a fair estimate. Last year over much of Southern California the average was very low, perhaps not over thirty pounds per colony. This year the average is perhaps three times that amount while a good crop would be nearer twice this year's average. When we say average we must of necessity be cautious as so much depends on locality. For instance one irrigated valley in our county produces as much honey for outside markets as some states and perhaps more. If this valley averages one hundred and twenty pounds, the orange grove section fifty pounds and the unirrigated parts sixty pounds, with many of the migratory beekeepers moving from the orange to the sage and wild buckwheat ranges, how is the general average to be ascertained? If we knew

the number of cases compared with other years this would give some idea. We still feel that a good season would give Southern California twice as much honey as did 1937.

Prices: Quite a lot of this year's honey has left the hands of the beekeeper. Prices advanced a little until about three weeks ago when they became steady. Buyers come around occasionally and if a beekeeper wants to sell and will take the price they offer, they will buy. Some years ago a buyer said, "When I can buy honey for four cents a pound, I can always sell to Germany". That seems to be the condition today to a certain extent. There is a price at which buyers are willing to take the light amber honey which they seem to have a market for. A number of the larger producers have held their honey, feeling that the unrest and uncertainty in world affairs may terminate in conditions that will make a demand for honey. Wax is in good demand at 23 to 24 cents.

Miscellaneous: How often we are asked, what is a colony of bees worth? Might just as well ask, what is a horse worth? Years ago when W. Z. Hutchinson, then editor of "The Beekeepers' Review", was asked the question he answered; as honey sells in cents per pound so should bees sell per colony. Five cent honey—five dollar bees. In those days a colony meant one story while today a colony usually means a two-story hive. But the price suggestion is not much out of the way generally speaking. Condition of hives and equipment, strength of colonies and the amount of stores, all must be considered. Some apiaries are being offered for sale as is often the case at this season of the year but most beekeepers who have been in the business for any length of time are pretty well satisfied that bees well cared for, will, one year or another, pay as well as other things, with the same amount of money invested.

The life of the bee from Maeterlinck's book, in November "Readers' Digest", is one of the best short stories of our industry that we have read. Another excellent article appeared in the June number of "Fortune". Accompanying this article are some of the best illustrations we have seen.

Judging from present indications orange locations will be in demand next spring. Beekeepers are already securing places to put their bees. Last spring prospects were so good for honey on the outside ranges that many beekeepers who in poor years moved to the orange groves decided to remain at home and save themselves the work of moving.—L. L. Andrews, Corona, Calif.

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TEXAS, November 1.

Weather: The first twelve days of October were a continuation of the drouth which began the first of June. Up to October 12 the bees were inactive. There was nothing they could do with the exception of carrying water to aid in keeping down the temperature in the hive. Beekeepers in the lower Nueces Valley were complaining of a scarcity of pollen and therefore no brood rearing. On the 13th almost two inches of rain fell differing from most Texas rains in that if fell slowly and was not accompanied by high winds. As a result the ground was well soaked. From the 13th through the 17th the sky was heavily clouded and light showers amounting to .55 of an inch fell. This placed the soil in excellent condition and caused all of the native plants of this section to come into bloom. The bees immediately commenced brood-rearing and during the last week of the month a honey flow sufficiently strong to offset the amount of stores being used for brood-rearing occurred. On the last two days of the month the scale hive showed a two-pound surplus stored.

Honey Crop: As far as can be learned the bees all over Texas will come into winter with ample stores. The number of hives is estimated to be slightly greater than that of last year. Estimates made by beekeepers over most of the state indicate that the honey crop this year approaches the long time normal and that a majority of this honey has passed from the hands of the producers.

Miscellaneous: A number of migratory beekeepers who winter in Texas have already arrived and it is known that others will follow their custom of spending the winter here. Many inquiries have come relative to unoccupied territory for bee wintering locations.—H. B. Parks, San Antonio, Texas.

BRITISH COLUMBIA, November 1.

Weather: The beekeeper in this vicinity who has not yet prepared his bees for winter can not use the weather as an alibi, as during October, we had ideal weather for the work—cool enough for the most part to confine the bees to the hive, and not cold enough to cause them to cluster and so retard feeding. To date we have had no killing frost in the Okanagan Valley from Kelowna south, and chrysanthemums and fall daisies still make of the gardens a riot of color.

Honey Crop: The total crop for British Columbia is expected to reach one and a half million pounds, giving the largest average production over a period of ten years. This is finding a ready market at a fair price, in spite of much competition with cheaper honeys from outside points where producers appear to be suffering from a corn syrup complex.

The distribution of this year's crop varies from that of last year in that the Fraser Valley district has a crop averaging better than eighty pounds per colony against an almost total failure in 1936. In the Okanagan Valley, July gave promise of a bumper crop. A late spring, followed by showery weather after the first crop of alfalfa was ready for cutting, gave the bees an opportunity of which they made the most but owing to cool weather in early August the second crop of alfalfa yielded practically nothing, and the end of the season found many four and five story colonies, with the brood chamber and lower super absolutely devoid of honey.

Miscellaneous: Higher prices for wheat have affected honey production in the interior of the Province as much land formerly in alfalfa has been broken up and sown to grain.

As elsewhere, beekeeping seems to be a doomed industry in the commercial orchard districts owing to increasingly heavier applications of arsenate of lead which are now continued until the end of August, giving the bees no chance because of the cover crops of sweet clover and alfalfa. Colonies so weakened fall an easy prey to wasps which are again present in large numbers and the beeman will lose not only his bees but the honey crop also if he is not on the alert.—G. F. Pearcey, Kelowna, B. C.

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SASKATCHEWAN, November 7.

Weather: Since my last report of August 7, conditions have altered slightly for the better. The weather during the late summer and fall has continued milder than usual. August was hot and dry, but good rains were secured over a large portion of the province during early September. Warm weather continued throughout September and at present the days are enjoyable and we have but slight frost during the nights. The lakes are still unfrozen.

Honey Crop: Our early estimate of the 25% normal honey crop would have been high had we not secured an unexpected flow in late September after the rains. This flow came much later than usual and lasted for but a short time. However, colonies in the central portion of the province, in many cases, secured their winter stores from it. The crop estimate based on the first five hundred questionnaires returned, show that this year's production will be in the neighborhood of one million pounds of honey. As this is the driest year this province has ever experienced we are well pleased with the returns secured.

Prices: Prices are disappointingly low. Manitoba beekeepers who have a big crop started selling honey at prices about one cent lower than last year, and this affected our market so that beekeepers are realizing about one cent less than was the case last year. Now that much of our short crop is sold there is every indication that owing to the crop failure throughout Ontario prices will strengthen. The demand for honey is brisk and there should not be any carry-over in any province this year.

Miscellaneous: The extremely dry weather during the spring and early summer was hard on this years' seeding of sweet clover and it is unlikely that half of the normal acreage of clover will be available for bee pasturage next year. However, as the bee population is not heavy in most areas in the province it should be relatively easy for beekeepers to secure adequate pasturage without moving too far.

Wintering prospects are not as good as last year, as colonies do not contain as many young bees as normally, also a large number of the colonies will be short of winter stores and as cash is very short with most honey producers little feeding will be done this year. A fairly heavy winter loss can, therefore, be expected and there will be a good demand from this prov-

ince for package bees next spring.

Most of our beekeepers favor the package shippers' code, believing that under it the shippers secure a very favorable price for their bees, and are therefore, in a position to give first class service. Good service has been received by purchasers but there are some points which package shippers should watch more carefully; for instance, last spring, most shippers were unable to send extra queens promptly to replace any loss in transit in their shipments of package bees. This resulted in a heavy loss of packages, as queen mortality was high last spring. It is just as important for a shipper to replace a dead queen as it is for him to send off another package to some one else, and last spring most shippers were reserving all of their queens for their packages and paid no attention whatever to demands for replacements. Shippers should also be more careful to not overbook themselves for any shipping date. A number of shippers did not live up to the code agreement in this regard last spring. Delays of one to two weeks in shipping were not uncommon. If shippers take a little more care with such points as these the support which the code of agreement has been receiving from this province will certainly continue.—R. M. Pugh, Regina, Sask.

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WYOMING, November 6.

Weather: Old timers in the Bridger Valley which is in the southwest corner of the state say they never saw as short a season as 1937. The same report comes from Fremont County in Central Wyoming and Sheridan County in the northern part of the State. Spring was unusually late. Some snow and cold weather was prevalent up into the first week of June, with some frost and much chilly weather until the middle of June. As for the latter end of the season frost held off unusually late not hitting most sections until after the 15th of September, but it turned definitely dry the latter part of July and no surplus was gathered after the 10th of August in practically all parts of the State. The fall weather has been ideal for putting away the bees for winter and at this writing, continues mild and pleasant, though still dry.

Honey Crop: Like last year the crop over the State has been spotted. The Basin country which carried the banner last year did not get the production it did in 1936, while Sheridan County with a complete failure in 1936 shows up with about a half crop this year. Production for the State of Wyoming as a whole is substantially less than last year, but the quality is tip top as usual.

Honey Market: Local markets are taking more honey every year, which with the lesser production, owing to the pranks of Mother Nature has practically stripped Wyoming of distress lots of honey. Inquiries from big buyers have been more plentiful then for six or seven years. Most of the honey is now out of the hands of Wyoming producers and it is to be hoped this early selling has not been done to the neglect of our home market as has been the case the last two years.

Beeswax: Demand for beeswax is good, some is selling at 25 cents f. o. b. shipping point.

Miscellaneous: Bees will go into the winter in better average condition than for several years. One thing most Wyoming beekeepers have found out is that they cannot buy package bees annually on prices that have prevailed for honey the last 8 or 10 years. Where bees have used up an appreciable amount of their stores owing to the early cut off of the flow occasioned by the lack of moisture considerable feeding has been done to bring them up to the desired weight. The early part of the summer saw much rainfall in most parts of Wyoming, and how the weeds did grow, smothering out everything in many fields. The State has been waging a fight against noxious weeds for several years and this year the campaign has been enlarged against wild morning glories, White top, Canadian thistles and many other varieties which seem to be decidedly on the increase and give promise of becoming a real problem in a few years more. Beet acreage has been increased steadily the last few years on account of its being a cash crop for the farmers. Also many fields of alfalfa have died out, leaving honey plants much less in quantity because of these two factors. There is still time perhaps for the lack of moisture to be made up by winter's snows.—Earl C. Reed, Ranchester, Wyo.

XUM

KANSAS, November 8.

Weather: The past growing season completes the fourth year of drouth and excessive high temperatures in this region. The present soil moisture situation is extremely acute, as all of the sub-soil moisture is depleted and at the present time the only moisture in the soil is that in the top foot.

Prospects: Under the present weather and soil moisture conditions, the prospects for successful beekeeping for this coming growing season and also for the one following (1939), are extremely poor. On the majority of farms and in uncultivated areas, white sweet clover is absent due to drouth and excessive high temperatures of the past four or five years. The only legume that is present in any quantity is alfalfa, and this crop in this state produces nectar only in the central and western areas. In the eastern area there is not sufficient lime in the soil for this plant to secrete nectar. The only section in which a crop appears possible at this time is in southeast Kansas. During the past year this region has had sufficient rain to mature sweet clover plants and at the same time produce seed from this crop before defoliation by grasshoppers.

Honey Crop: One of the shortest honey crops that Kansas has ever produced is that of this year. Colony population has dropped and the yield per colony, due to drouth conditions, is also lower.

Miscellaneous: Drouth conditions have produced a decided influence upon commercial beekeeping in the state, and some of the more progressive beekeepers have moved to areas in the United States where the honey production situation is more satisfactory and uniform year after year. Some beekeepers are remaining in Kansas due to certain land, traditional or social ties. Others have gone out of the beekeeping business and others will go out of the business.

At the present time there is being planned a beekeepers' program for Thursday, February 10, 1938. This is a part of the Farm and Home Week program which is to be held at the Kansas State College during the second week in February.—R. L. Parker, Manhattan, Kans.

SOUTH LOUISIANA, November 8

Weather: Conditions were ideal for the development of goldenrod and a large surplus was expected from this source. Then, just as blooming started, drizzling rains set in and prospects were ruined.

Crop and Markets: For the seventeenth consecutive year this immediate locality is averaging about 100 pounds per colony. Most of this honey is lighter in color and body than is usual here, but it is heavy enough to stand tank storage without fermenting. Wholesale prices are unsatisfactory, most offers being a little below those of last year. However, as fast as the little fellows sell out and thereby lessen competition, prices will stiffen. Those beekeepers who bottle for the retail trade have maintained their price very well for several years.

Miscellaneous: With New Orleans named as the next meeting place of the League and associated organizations, we are already beginning to lay the foundations for a good meeting. The lack of definite action regarding National Supervision over the Interstate Movement of Bees and Used Equipment is generally regarded as a "neglected opportunity" by those who participated in the Washington meeting. We will have to act in this direction sooner or later, and unless something is done during the year, the 1938 meeting should thoroughly thrash out this question. Such a regulation is not as dangerous as some persons seem to think. There need be no interference with state programs or policies—just a background of a "minimum requirement" of inspection activity and efficiency before any state could legally move bees or used equipment into another state. No restrictions should be placed on the movement of honey, but I surmise that honey from such states as did not meet requirements would always bring a low bid from out-of-state buyers, thus adding to the pressure and eventually forcing cooperation. This is worth thinking about. Every beekeeper seems to want to safeguard his territory. National supervision would enable us to make one more step along the path of safety. We should take this step. — Geo. W. Bohne, Luling, La.

MICHIGAN, November 7.

Weather: In central Michigan there was much too much rain last summer and too little this fall. We need enough rain before freezing weather sets in to fill the swamps and water holes, if the seedings are to be in good shape next spring. Eastern and northern Michigan are better supplied with moisture.

Crop: The lightest crop in years for the state as a whole. Half of Michigan had a complete failure and the rest of the state had one-third to one-half of a crop. Some thin honey was reported earlier in the season. The fall flow did not materialize because of cool weather.

Miscellaneous: Seedings look fine and next year should be good, provided the weather is normal. In the area of crop failure, bees are in poor condition for winter, having checked brood-rearing two to three weeks early. Most of the bees in the entire state needed feeding for winter. We predict an unusually heavy winter loss.

Retail sales have been better than usual at 10% to 15% advance in prices. Large lots of bulk honey have moved readily at ½ to 1 cent per pound increase over last year's market. Comb honey has been too scarce to set a market price.

As might be expected, beekeepers who have had no crop have had a tendency to put their bees away for winter in poor condition even in the face of good prospects for next year. Their loss may be the package shippers' gain, although the package bee business will thrive most from profitable management by honey producers, rather than from replacement of winter losses. Poor seasons lead to discouragement and losses; and what our industry needs most is a chance for the average beekeeper to be able to make a fair profit and steady advancement. Then the bee supply manufacturers, the bee shippers, the bee journals, the honey producers and, yes, the American Honey Institute, will all feel new life and go places. It is hard to smile when your cake is snatched from your fingers by no fault of your own, but many beekeepers have had to do just that this year, and tighten their belts in hope of a good year in 1938.—R. H. Kelty, Lansing, Mich.

INDIANA, November 10.

Weather: Owing to unfavorable weather during September and early October, bees failed to gather as much surplus as was anticipated. In fact, less than one-third of the usual fall crop was secured. There was no white clover or alsike honey produced this year in this locality and very little sweet clover. Many colonies were short of stores this fall and, where not fed, probably will fail to survive the winter. Each year there is a considerable spring as well as winter loss in most apiaries. The greater part of this loss is due to starvation. It would seem that **the best time to do spring feeding is in the fall.** Being sure that each hive is provided with an ample supply of full combs of honey is preferable to feeding sugar either in spring or fall. There is considerable clover in sight in lawns and fields which augers well for next year's crop but, of course, we can never be sure of the crop until it is in the cans.

Prices: Demand for honey is fair but prices are low. It seems that crop failures and scarcity make very little difference in prices offered. Low prices are due chiefly to two factors. One is the competition of sugar and the other the willingness of many beekeepers, both large and small, to dump their honey for any price offered. Apparently, not many beekeepers are good salesmen.

Miscellaneous: There are fewer small beekeepers than formerly in this locality. A considerable number have been put out by AFB but more, perhaps, because of the attraction of jobs in the mills, which pay much more than can be earned by keeping bees, especially by those who lack in efficiency. Nearly all beemen here appreciate and are anxious for the inspection service and are willing to cooperate in keeping out disease. Burning is generally accepted as the cure. I understand that some other counties in the state are not so fortunate, Indiana has only six bee inspectors for its 92 counties and, of course, it is impossible for them to cover the whole ground. In my opinion, beemen of the state should demand a greater appropriation for this work and more thorough inspection.—E. S. Miller, Valparaiso, Ind.

XUM

ILLINOIS, November 7.

Weather: We have had plenty of rainfall this past summer and the clover stand is good. Rainfall during the last few years has been insufficient, and white and alsike clover have suffered and did not yield. If conditions remain as they are now we ought to get a flow from this source next year.

Honey Crop: The only part of the state to get sweet clover honey this year was a small area in the east central part of the state and a few yards in the North. The rest of the state did not get any or very little light honey. Reports are coming in that the western part of the state had a good fall flow, as high as 90 pounds per colony in some cases.

Prices: Prices are just about the same as last year. Even though the crop is short, we cannot raise the price because some large bottlers have been successful in securing a large amount of honey at a low price and they control the market.

Beeswax: Beeswax is a little better in price and in demand. Comb honey is very scarce and sells readily at 25c retail.

Miscellaneous: One of the hardest jobs for the officers of the local and state organizations is to get the beekeepers out to the different meetings. If we could only devise some means to get them to come to meetings they would derive a great amount of good from them.

The bees in this section have been confined to the hives for the past few weeks but today they are having a good cleansing flight. In general bees are going into winter quarters in good condition and if we do not have too cold a winter everything will be ready for that Bumper Crop of 1938. —C. L. Duax, Chicago, Ills.

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VERMONT, November 4.

Weather: As is to be expected, winter is almost with us. It's been a dry fall with frosts and freezes for a month. Now the mountain tops are white with snow. I hope the gods of winter will hold off all snow storms for another week, at least. We still have 200 colonies of bees to pack for winter. That's what happens for going galavanting to the Washington meeting instead of tending to business. However, it certainly was well worth it, even if we do have to pack the bees in snow. We had a wonderful time.

Honey Crop: Some of the yards in the northern part of Champlain Valley have filled up well with winter stores from goldenrod and aster, helping greatly to offset the heavy feeding required in yards in the southern part of the valley. This difference in fall flow holds true every year. Though bees in the southern end of the valley need heavy fall feeding, they get a much better quality of white honey than bees up north. Even with a few miles difference, you can't have everything in one location.

Prospects: Prospects for next year are good, it all depends on the winter. Lots of snow and cold means a good crop of clover next summer. We should get a good cold winter this year to make up for the "hot" winter we had last year. Clover is about normal as to quantity and condition.

Miscellaneous: Confab brings up the carbolic screen question. Everyone starting to use the carbolic screen should remember; go slow and acquire the technique; one pound of carbolic acid will take off from 3 to 5 tons of honey. Beginners are apt to use too much acid. Properly used, there is never any odor in sealed or unsealed honey.

Bee magazines are again full of descriptions advocating the tar paper method of packing bees. There ought to be a "law agin it". We've just finished packing 100 colonies by this method and for the second season, I swear, "Never again". The labor involved in packing and unpacking, and cost of material is just too much. I'm thankful I don't have to pack all my 600 colonies in such fashion. I'd be packing till Christmas. Where bees are permanently located, there's nothing better than a single permanent packing case.

One of the greatest pleasures for me at the Washington Conference was the opportunity of meeting the southern beekeepers.

It must be nice down south to have it warm all winter. But after hearing about the bugs and things that go with it, I still like winter. For six months we'll have no flies, mosquitoes or other insects. We never see

roaches or other house bugs. Bees don't rob, starve, or need any attention whatever for six months. And while we are waiting for summer, we have that combination of mountains and snow that makes the greatest of all sports, skiing. By the time this is in print, we hope to have the bottom of our skiis polished up with beeswax, all ready for a four foot blanket of dry powder snow. What a thrill to go sailing down the mountain side again, to hear the whistle of the cold winter air and the soft hissing sound of swift sliding skiis.

I almost forgot, end of this month is deer season. There's a big buck waiting for me up in the mountains. Hope I can show you his picture next time.—Charles Mraz, Middlebury, Vermont.

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ONTARIO, November 6.

Weather: Another month has passed rapidly, and today, finds bees about ready for winter except a few yards that need some packing. Feeding has been heavy in most localities in Ontario this fall and it would not surprise me if there should be quite a loss from starvation wherever strict attention has not been given to brood nests, for very few colonies had much honey when supers were removed.

As stated in last issue we have a few colonies in one yard that have two full-depth bodies for winter and when I examined them early in October they had nothing whatever in lower brood nest. Personally I do not like to have bees go into winter quarters in our latitude with a great lot of empty comb space no matter what the size of the hive, as this condition invites brood-rearing during January and early February, and the more brood reared at that date the greater the liability to the colony. The old time theory that empty cells are necessary for bees to cluster on in the winter has been exploded and we now know that bees will winter well on solid combs of honey—in fact the so-called winter-nest is responsible for much of our winter loss each year.

Honey Crop: With a very short crop of honey it is only natural that prices should be firm and on the up grade at present. Manitoba has a good crop and I notice by weekly reports that come to me, that prices there are the lowest quoted in the Dominion. Some Manitoba honey is coming to Ontario and this factor is no doubt a stabilizing influence that will prevent honey here in Ontario from going out of bounds. We are sold out entirely and almost every day we have inquiries for honey that we are unable to supply. Demand exceeded our expectations and we made the mistake of selling too much of our light crop wholesale and not reserving enough for our retail trade.

From personal contact with some other producers I find that others did likewise and that means that many who would be using honey will likely do without it as it is a fact that many people will only buy honey from beekeepers they have been dealing with for many years.

If the law of averages holds good as it does in most matters including the weather, we should have a mild season for the next month or two.

September was much cooler than usual and October the coolest since records have been kept at Toronto where our local observatory is located. I say "cool" and not "cold," for we have often had more heavy freezing in past years during October. But it was cool all the time with only a day or two that bees flew freely. There was very little really bad weather and the work of getting bees ready for winter was not impeded very much at any time. By the time this is in print the Ontario Convention of the provincial Association will be a thing of the past, and at this date it looks as if the usual good attendance will be in evidence even though we have had a very poor year.

Miscellaneous: Prospects for next year continue good. I never saw clover looking any better than it is now, and there is a good acreage in sight in most localities. While the presence of honey producing plants does not necessarily mean a crop of honey, on the other hand a honey crop is not usually secured unless they are present.

With the bees about ready for winter, the writer has not much to look ahead to for the winter in the way of manual labor. We have quite a number of mink to look after now but that work is not arduous and only takes a small portion of each day. As usual we will expect to take the dog and gun and go chasing the big European hares that are fairly plentiful in our locality.—J. L. Byer, Markham, Ont.

XUM

Asked and Answered

Packing Bees Late in the Season

Question. — An unusual amount of work prevented me from packing my bees at the proper time last fall. Would packing bees in early December tend to disturb them too much?—N. A. Lamb, N. Y.

Answer.—By all means, supply the necessary winter protection as soon as possible. If you pack with slater's felt, with insulating material placed between the paper and the hives it is possible to do the packing without disturbing the colonies to any great extent. Usually the coldest part of the winter comes after Christmas. Adequate protection for bees is one of the important factors in wintering bees successfully, especially in your state.

Do Not Winter Diseased Colonies

Question.—Do you think it would be safe to try to winter a few colonies slightly infected with AFB, with a view of treating these colonies next spring?—M. L. Gleason, Pa.

Answer.—If such colonies are very populous in bees it may be possible to carry them through the winter. As a rule, colonies that are diseased in the fall die before spring and the hives are likely to be robbed out. It is much safer to dispose of diseased colonies as soon as AFB is found. There is then no danger of spreading disease.

Fall Honey for Winter Stores

Question.—Is fall honey as suitable for winter bee food as clover honey?—J. R. Quinn, Ill.

Answer.—As a rule, fall honey is not as suitable for winter stores as clover honey. However, buckwheat honey is considered good winter stores. Goldenrod and aster and other late-gathered honeys, if properly ripened, can be used for winter stores. The objection to these honeys is that during some seasons cold weather sets in too early to permit the bees to properly cure or ripen them, and as a result, the high moisture content of the honeys may cause fermentation, and this in turn causes dysentery. If, however, colonies are populous and the weather following the fall flow is such that bees have a chance to ripen the honey, there is not likely to be any winter loss, especially when adequate winter protection is provided.

Hive Entrance Screens Inadvisable During Winter

Question.—I plan to winter ten colonies in a dark fruit cellar in one end of the basement under my house. Is it advisable to place an entrance screen in each hive to keep the bees in the hives and to exclude mice?—J. L. Rice, Minn.

Answer.—Hive entrances should be left open. The temperature of your bee cellar should range between 40° and 50° F. If the temperature runs lower than 40° it would do no harm to reduce the hive entrances down to smaller dimensions than the regular full summer entrances. A scant ⅜" entrance should exclude mice. If you use the full ⅞" entrance, a piece of coarse ¼-inch mesh screen over each entrance will permit bees to pass through and will exclude mice. If bees are kept in hives by fine entrance screens during the winter they are likely to worry themselves to death.

Blending Honeys of Different Flavors

Question.—I wish to mix, or blend, some honeys of different flavors together. How should I go about it?—L. P. Bang, N. J.

Answer.—It is necessary to heat the honeys and to mix them thoroughly while hot. Raise the temperature of the honeys being blended to 160°F. This temperature should not be maintained longer than one hour because of the danger of discoloring the honey. The blending of honey on a commercial scale should have special apparatus such as a water jacketed tank equipped with an agitator inside of a closed vessel. Blending honeys in small quantities can be accomplished by using a stick or paddle for stirring thoroughly while hot.

Sweet Clover—How to Grow

Question.—I would like to know how to sow 103 acres in Hubam clover for this coming season. How much should I sow per acre of seed, and how deep? The biennial grows six feet tall here. I am high in a mountain valley above Pecos, New Mexico, at an elevation of 8400 feet. We raise oats here five feet high and barley three feet. We plant around April 20th to May 1st.—C. A. Baltzley, Pecos, N. M.

Answer.—It is doubtful if annual sweet clover, if sown in the spring in

your locality, would reach maturity before the first severe frost or freezing weather would cut it down. The biennial sweet clover, because it takes two years from the seeding to reach its best maturity, starts much earlier in the spring than the annual can possibly start, with the result that the former will mature and develop seed. At your elevation, 8400 feet, it is evident that you would have a shorter season than we have in most of the northern states. In none of the northern areas will the annual mature, because it is practically impossible to get a good catch of it early enough in the season so that it will reach its full growth. Largely because the root of the annual sweet clover is inferior to that of the biennial, and because it takes so long to mature, the annual sweet clover has made little headway in the North, and its growth has all but been discontinued; so much so, that it is difficult to get annual sweet clover seed

Ordinarily it takes from ten to twelve pounds of standard, scarified and hulled seed to the acre. By scarifying we mean that the seed should be run through a machine which will scratch the shell so that the moisture can penetrate and cause the seed to germinate. It takes five to ten pounds more of unhulled seed to the acre. In either case, the soil must be thoroughly inoculated before any kind of growth can be secured. For that reason the seed men are prepared to furnish sweet clover seed already inoculated so that it will grow in localities where neither sweet clover nor alfalfa have been grown before.

If you try the experiment of putting in annual sweet clover in your locality, we advise sowing it in rows and cultivating the rows shortly after the plants begin to come up. The annual sweet clover plants are not able to resist the growth of weeds, and it is therefore necessary to cultivate it like corn and other plants grown in rows. After the plants attain sufficient growth, they mature very rapidly and will crowd out all weeds from that time on. The seed bed requires a soil that is thoroughly pulverized and the seed should not be covered any deeper than is absolutely necessary to get a growth. This applies to both the annual and biennial sweet clover.

Do Bee Stings Have an Accumulative Effect

Question.—In an article in the July issue, E. R. Root mentions that bee stings have an accumulative effect that re-acts in after years. I would be very glad if you would let me know more detailed information with regard to this. Just what effect do they produce in after years on one's health and how much does one have to get stung to produce any deleterious effect?—P. H. Morgan, Quebec, Canada.

Answer.—To discuss this broad subject by correspondence is almost impossible. I suggest you read Chapters 6 and 7 of my book "Bee Venom Therapy" if you find spare time to do so and you are relaxed enough to exercise your power of concentration which is necessary to fully understand this complicated subject. The statement that bee stings have an accumulative affect is by no means incorrect but the effects depend so much on individual conditions that they greatly vary. In some persons it pro duces immunity, in others, sensitivity. Both conditionalities are unquestionably based on accumulative effect. Beekeepers, as a rule, by accumulative effect of the venom become immune to it and in time do not react locally and generally, with which I mean in their systems, to stings. Of course, every immunity wears off in time. Beekeepers, during the summer season, get immunized to stings and by fall they hardly react to it. During the winter when they are not stung their immunity wears off and by next spring they are sensitive again to stings. The experience of Rev. Langstroth that he greatly suffered when he went back to his bees was undoubtedly due to the fact that his immunity during the "unexposed" period had worn off and he was sensitive again. Often enough during such an inactive period people acquire sensitivity and they can toler ate less stings than ever without suffering a local and general reaction. During my professional work with stings I often find such cases, that is, if a patient received a longer treatment after which there is a long interval, during which no treatments are administered, at the renewed application of stings they become so sensitive that while they could stand 50 and 60 stings during the active treatments, after a long interruption they become very sick from one or two stings. All this is due, beyond doubt, to the accumulative effect of the previous stings. This is a very important aspect to consider during professional work.—Answered by Dr. Bodog F. Beck, New York City.

Heads of Grain from Different Fields

Bear Satisfies His Sweet Tooth

During the first part of October my little apiary of 12 colonies was visited by a bear. While the animal ruined only one colony he did a good job of it. The hive, which is one of two stories or of the food chamber

Bears love honey, and when they go after it they leave ruin in their wake.

kind, was carried several feet, dropped and chewed and clawed and many of the frames were torn to bits. This was one of my strongest colonies. It contained about 30 pounds of basswood honey. In view of the Michigan law relative to bears I had a justice of the peace look at the wreckage. He notified a conservation officer at Antonagon who has visited the scene for inspection and it is quite probable I will receive damages. —Jess Beckhorn, Toivola, Mich.

• • •

Mirror Brings Down a Swarm

In July, 1937, Gleanings, in answer to what caused a swarm to cluster, you say you do not think flashing a mirror in the sun had anything to do with the bees clustering. I have used a mirror many times and it has **never failed.** I have stopped a swarm that has hung over night in the top of a high tree, and stopped them with a mirror on the truck. They alighted on a low limb of a tree less than three rods from where they had hung all night. They always light low when stopped in that way. I suppose they think it is lightning and that it is going to rain. I learned this from the editor of the "Beekeepers' Review," Mr. Hutchinson.

In February, 1937, Gleanings, page 106, "A Safe Winter Entrance," you say it may work. I have used that method for more than 20 years. I do not use an empty hive body as that is too deep. I have wintered very weak swarms that way. I use an inner cover with a hole 1¼" in diameter under the bottom board.—J. H. Sprout, Lockport, N. Y.

• • •

Hoppers Worse Than Drouth

A great many theories have been advanced as to the cause of the decline of our once record-breaking crops of sweet clover honey in this section. The general opinion is that lack of moisture is the cause of all of our troubles. However, sweet clover is a wonderful drouth-resisting plant and I have seen very satisfactory crops of honey produced in very dry periods. I believe the grasshoppers are worse than drouth and they thrive during drouth conditions. From the experience of the drouth years I am firmly convinced that where hoppers are numerous very little honey can be produced. The hoppers are very early risers. Their feeding time is from daybreak until about 8 o'clock a. m. But if their feeding time is short they make this up in the quantity they consume and they prefer the buds and flowers. Just another case of the "early bird." Someone suggests that alarm clocks might be used to speed the bees up.

Poison bran is very effective in killing hoppers. But very few will cooperate and the result is that enough eggs are laid to insure a crop of hoppers for the following year.—Andrew McBride, Hawarden, Iowa.

Buy and Sell Here

CLASSIFIED ADS

Only responsible advertisers and honest advertisements will be admitted to these columns. References required from new advertisers not known to us. Rate—7 cents per counted word each insertion. Each initial, each word in names and addresses, the shortest word such as "a" and the longest word possible for the advertiser to use, as well as any number (regardless of how many figures in it), count as one word. Copy should be in the 15th of month preceding.

HONEY FOR SALE

The reliability of honey sellers is not guaranteed, although strict references are required.

AMBER in 60's, 7c. E. S. Miller, Valparaiso, Indiana.

FANCY clover honey, case or quantity. J. Stahlman, Grover Hill, Ohio.

FOR SALE—Extracted and comb honey. M. W. Cousineau, Moorhead, Minn.

HONEY—Light and light amber extracted. F. W. Lesser, Fayetteville, N. Y.

CHOICE MICHIGAN clover honey in new 60's. David Running, Filion, Mich.

BUCKWHEAT extracted, also light amber, 7c. Howard Grimble, Holcomb, N. Y.

BUCKWHEAT HONEY extracted in sixties, 6½c. Clarence Dalrymple, Dayton, N. Y.

FOR SALE—Fine buckwheat honey in kegs. Julius Seewaldt, Gainesville, New York.

FRANK RASMUSSEN, producer of white and amber extracted honey. Greenville, Mich.

CHOICE CLOVER and light amber honey in 60's. The Hubbard Apiaries, Onsted, Mich.

ORANGE, palmetto, or amber honey in new sixties. Peter W. Sowinski, Fort Pierce, Fla.

CHOICE MICHIGAN clover honey in new 60's. Arthur Thayer & Sons, Freeland, Mich.

LIGHT AMBER, crystalized, in 60's, 6½c lb. H. Blitz, P. O. Box 3452, Philadelphia, Pa.

TEN TONS fancy white clover honey in new sixties, 8c F. O. B. Leroy C. Keet, Watertown, N. Y.

3000 pounds fine clover honey. $4.20 for 60-lb. can. F. F. Karekel, Williams, Box Q, Iowa.

AMBER HONEY—Good quality, not less than 50% clover. Harry Spooner, Stephens, Arkansas.

FINEST New York white clover honey in any container. Angus Carruthers, Syracuse, Rt. 2, New York.

NEW CROP clover honey in new 60's. Excellent flavor for table use. Ray Hiltner, North Creek, Ohio.

WHITE clover comb, 12 and 16 oz., mostly 15—24 sections $3.75. Clarence Engle, Kearneysville, W. Va.

75 CASES BUCKWHEAT comb honey, No. 1 and No. 2. Write for prices. Noel J. Loucks, Springboro, Pa.

NEW YORK STATE'S finest extracted honey, clover, clover-basswood blend and buckwheat. Walter Severson, Box No. 825, Albany, N. Y.

STOLLER'S Excellent quality extracted clover honey, packed in 60's. Finest obtainable, 8c lb., guaranteed as represented. The Stoller Apiaries, Latty, Ohio.

BUCKWHEAT famous Helderberg Mountain quality, in 60's. H. Greulick and Son, Scotia, N. Y.

CHOICE EXTRACTED buckwheat honey in 60-lb. cans and kegs, 6c. Seward Van Auken, Duanesburg, N. Y.

HOWDY'S HONEY—White, clover and amber, mixed extracted in sixties. Howard Potter, Ithaca, Michigan.

FOR SALE—Light clover and buckwheat extracted in new 60's at market price. Carlton D. Howard, Ovid, N. Y.

FOR SALE—Blended clover extracted honey, fine flavor, 8c, in case lots. N. B. Querin, R. No. 4, Bellevue, Ohio.

HONEY FOR SALE—All kinds, any quantity. H. & S. Honey & Wax Co., Inc., 265-267 Greenwich St., New York, N. Y.

FOR SALE—CHOICE clover and amber extracted honey. Write for prices and sample. Jonkman & Oosting, Evergreen Park, Ill.

FOR SALE: No. 1 weight clover comb (discolored some) $4, per case of 24 sections; amber extracted in sixties, 7½c. H. G. Quirin, Bellevue, Ohio.

SOLD OUT of Michigan clover honey, thanks! Our 1938 crop should be ready for the market next July. E. D. Townsend & Sons, Northstar, Michigan.

CLOVER HONEY FROM CLOVERDALE, Ohio's finest clover extracted in 60's. Sample, 10c. Prices upon request. The Cloverdale Apiaries, Cloverdale, Ohio.

COMB HONEY—Fancy amber, $3.50; No. 1, $3.25; fancy buckwheat, $3.25; No. 1, $2.75; light amber clover, 8c; buckwheat, 6½c. C. B. Howard, Geneva, N. Y.

HONEY PACKERS—Write us for prices on carload lots of California and western honeys. We stock all varieties. Hamilton & Company, 108 West Sixth St., Los Angeles, Calif.

NEW YORK State comb and extracted honey, buckwheat and clover, any quantity, all size packages. Five-pound pails my specialty. Edward T. Cary, Midland Ave. and Tallman St., Syracuse, N. Y.

FOR SALE—Well ripened white sweet clover honey. Don't let your customers be without honey. The stock we furnish will please them. Write today for prices. Colorado Honey Producers' Association, Denver, Col.

HONEY AND WAX WANTED

BEEKEEPERS TAKE NOTE—We will not guarantee any honey buyers' financial responsibility and advise all beekeepers to sell for cash only, or on C. O. D. terms except when the buyer has thoroughly established his credit with the seller.

CLOVER honey, extracted, case, truck or carlots. Send sample and price. F. M. Babcock, Fredonia, N. Y.

XUM

WANTED—White clover and amber extracted honey. Mail samples and price. Jonkman & Oosting, Evergreen Park, Ills.

WANTED—White clover and light amber extracted honey, white comb, carlots or less. Roscoe F. Wixson, Dundee, New York.

WANTED—Comb, chunk comb, white and light amber extracted honeys. Any amount. Central Ohio Apiaries, Millersport, Ohio.

WANTED—Carlots of honey, state quantity, shipping point and price. Mail sample. Bryant & Cookinham, Inc., Los Angeles, Calif.

CASH PAID for all grades of honey. Bee supplies and honey containers for sale. A. Tennenhouse, 12213 12th St., Detroit, Mich.

WANTED—White and Amber Extracted Honey, any quantity, also Beeswax. Write The Fred W. Muth Co., Pearl & Walnut Sts., Cincinnati, Ohio.

WANTED—Chunk comb and extracted honey in truck or car lots. Send sample and price delivered to Clover Bloom Honey Co., 1022 North Ollie St., Oklahoma City, Okla.

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QUALITY bee supplies at money-saving prices. Prompt shipment. We take honey and beeswax in trade. The Hubbard Apiaries, Onsted, Michigan.

ATTRACTIVE prices on bee supplies and comb-foundation. Send for catalog. Saves you money. The Fred W. Muth Co., Pearl & Walnut Sts., Cincinnati, Ohio.

YOUR WAX worked into deep cell natural base medium brood foundation for 15c lb.; 100 lbs., $11.00; thin super, 22c. Fred Peterson, Alden, Iowa.

COMPLETE easy queen painting outfits, latest apicultural development, ideal gift, $2.00 postpaid. Southwick Apiaries, 176 Waban Avenue, Waban, Massachusetts.

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BEES AND QUEENS FOR SALE

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WRITE US about our package bees and queens for 1938. Citronelle Bee Co., Citronelle, Ala.

SILVER RUN QUEENS are sterling. Try them. Silver Run Apiaries, Rt. 1, Phenix City, Alabama.

BOOKING ORDERS 1938 delivery. Caucasian package bees and queens. Market agreement prices. Lewis & Tillery Bee Co., Greenville, Ala., R. 4.

CAUCASIAN package bees. Booking orders now for 1938 delivery at new market agreement prices. P. B. Skinner Bee Co., Greenville, Ala.

HEADQUARTERS for Hollopeter's well-bred three-banded Italian queens. White Pine Bee Farms, Rockton, Pa.

MACK'S QUEENS—They speak for themselves. Booking orders for 1938 delivery. Herman McConnell, Robinson, Ill.

MILLER BROTHERS—Three Rivers, Texas, are the only exclusive Caucasian queen-breeders west of the Mississippi River.

QUEENS and Package Bees, Market agreement prices. Cypress supplies. Let us quote you on your needs. Overbey Apiaries, Bunkie, La.

QUEENS MAILED ANYWHERE, any time, pure three band Italians, at market price. Write for circular. D. W. Howell, Shellman, Georgia.

PLAN FOR 1938 NOW—Let package bees increase your profits. J. M. Cutts & Sons, R 1, Montgomery, Ala.

IF YOU are interested in some good packages or queens for next season. Caucasians or Italians, write Weaver Apiaries, Navasota, Texas.

FOR SALE—Pure Italian queens and bees, bright yellow and three-band. You send for them, they go. Graydon Brothers, Rt. 2, Greenville, Ala.

BOOK YOUR 1938 Bee and Queen orders with us, get quality goods backed by 27 years experience. No deposit required. Merrill Bee Company, Bucatunna, Miss.

ITALIAN QUEENS from selected stock. Experiment Station Stock, 75c each; Spicer Stock $1.00 each, any number. See ad. May and June Gleanings. E. G. Carr, Pennington, N. J.

CAUCASIAN QUEENS and package bees. Booking orders now for delivery in 1938. 12 years a breeder of Caucasians only. Best quality stock and service guaranteed. Bolling Bee Co., Bolling, Ala.

GENUINE three-banded Italian bees and queens of fine quality, for 1938. Alamance Bee Company, Geo. Elmo Curtis, Mgr., Graham, N. C.

THREE-BANDED Italian queens. Booking orders for 1938 delivery. Satisfaction guaranteed. Lamar Bee Co., Box 1503, Baton Rouge, La.

HELP WANTED

WANTED—Industrious man with good clean habits, some beekeeping experience, as helper for coming season. Give qualifications, wages wanted. Housing furnished. 3515 Harding Ave., Honolulu.

WILL NEED a good queen breeder from January 1 to June 30, 1938. Most important to be strictly sober. Write, if interested, stating full qualifications. Lucedale Apiaries, Lucedale, Mississippi.

POSITION WANTED

POSITION WANTED—By experienced man with a Florida beekeeper, in January, 1938. Warren R. Ionson, 203 W. Newton St., Boston, Mass.

HONEY CANDIES

HONEY CHOCOLATES FOR CHRISTMAS—The only sugar in our fine honey chocolates is the small amount contained in the chocolate coating. Mostly fine dark chocolates with a few milk. Hand dipped. Finest quality. A fancy selected assortment of fruit and nut centers and Honey creams. In one pound boxes, cellophane wrapped. Single pounds, 85c postpaid. Per dozen $7.20 F. O. B., Denver. Your satisfaction guaranteed. Capacity limited. Order early to avoid disappointment. R. J. Chadbourne, 1525 Wynkoop St., Denver, Colorado.

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BIG MONEY in poultry this year. Read Poultry Tribune, the big monthly magazine that tells how leading poultry raisers make money. The only poultry magazine operating its own experimental farm. Five years $1.00, one year trial 25c. Poultry Tribune Dept. C-52, Mount Morris, Ill.

MISCELLANEOUS

WANTED—Exchange printing for honey. Snapp Printing Co., Greeneville, Tenn.

FOR RENT—60 clean colonies with young bearing orchard. On shares. Geauga County, John Klements, 17913 Grovewood, Cleveland, Ohio.

WANTED—Commercial apiaries to operate. Capable, 22 years experience as producer, queen breeder, state inspector. References. Box 58, Twin Lake, Mich.

I wish to contact experienced beekeeper established in good location, who would consider partnership with sober energetic man with limited experience, wanting to become commercial beekeeper. If interested, address your proposition to Box No. 55, this magazine.

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WHEN WRITING TO ADVERTISERS, MENTION GLEANINGS.

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All orders booked in advance with us for the Spring of 1937 were delivered **ON TIME.**

Our appreciation of your patronage is shown in the superior service we give and our activities for the general betterment of the Bee Industry, by contributing to The American Honey Institute.

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Standard Hives, etc.

The A. I. Root Co., Medina, Ohio

CONFERENCE ON BEE BREEDING

(Continued from page 748)

The following is a summary of important points emphasized in the conference:

1. Fundamental work on the genetics of the honeybee should be given equal priority with those phases of breeding having to do with race improvement through the selection and inbreeding or crossing of existing strains and races of the honeybee on the basis of some colony character such as honey production. This fundamental work can most easily be conducted through the use of some readily recognized mutant character expressed in the individual bee, a mutant eye color being one example.

2. A more detailed study is needed on the process of reproduction in the honeybee, especially as regards the reactions of both queen and drone in mating under natural conditions.

3. An up-to-date summary and interpretation of cytological literature dealing with the honeybee is needed.

4. A new cytological study by a cytologist experienced in technique with Hymenoptera and in the use of the latest cytological methods is essential.

5. An attack should be pushed on the problem of improving the technique of both the Watson and Laidlaw methods so that a higher degree of certainty will accompany work with these methods, both as regards percentage of queens from which worker progeny can be obtained and as regards percentage of success in filling the spermathecae of individual queens with sperm.

6. Artificial insemination can now be used to maintain a reserve reservoir of choice stock and to make crosses in genetic studies involving characters affecting only the individual bee. Natural matings must still be resorted to in breeding for colony characters because mass production of progeny per queen is needed in these cases.

7. Certain distinctive racial characters are available for immediate use in inheritance studies and bee improvement work. These include not only body characters expressed in the individual bee but colony characters as well. A few mutations of such a nature as to be of great value in genetic work are likewise available.

8. The use of X-rays is the best method at present for inducing mutations.

9. Every care should be used to preserve and propagate mutant stock.

Division of Bee Culture
Bureau of Entomology and Plant Quarantine.
September 27, 1937.

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GOVERNMENT HONEY MARKET

(Continued from page 717)

than usual, especially on the part of farmer beekeepers. Most commercial beekeepers have now either packed their bees for winter or are arranging to place them in cellars. Late fall rains have placed honey plants in good condition for next year over much of the Eastern and Central States though precipitation in the Plains States and over much of the Mountain Area has been below normal. Beekeepers are beginning to be concerned over the shortage of early snowfall in the Rockies. The market for honey appears to be fully firm except on the Pacific Coast, where lack of willingness to buy on the part of some of the large dealers has weakened the market trend slightly. Many beekeepers are endeavoring to buy from others in order to have enough honey to supply their regular customers for the balance of the year. Comb honey has sold rapidly and little comb honey now remains unsold.

TOO LATE TO CLASSIFY

SELL ALL or part package outfit. Alonzo McKay, R. 1, Vicksburg, Mississippi.

WANTED—Experienced beekeeper, steady employment, room and board furnished. State all in first letter. Clover Blossom Honey Co., 712 Kossuth St., Columbus, O.

SPINSTER JANE SAYS—

(Continued from page 743)

publicity. Perhaps we may be able to stir her curiosity, and set her to work finding out all she can on this subject.

She told us all sweets should come at the end of the meal, and at the end of each breakfast menu we were allowed to add a taste of jam, jelly, marmalade, honey, or syrup. Not much stress laid upon honey, was there? What will she say, I wonder, when I tell her I would like to see honey upon all our tables, three times a day?

In the recipes furnished by the Department, I notice one with honey, "Honey Meringue," it is called, and how I would like to have many of Mrs. Nielsen's recipes tried out there.

But it is with honey, as with many other foods, we must first educate our people to acquire a taste for honey. Once that is accomplished we will have honey fans galore.

Now, merry Christmas to Gleanings, its staff, and all its contributors and readers, and may your tables never lack a supply of good honey.—Spinster Jane.

WHEN AND WHERE TO BUY

Bee Supplies

Now is the time to make preparations for next year. Prospects for clover look mighty good, so you had better be ready.

THE STOVER APIARIES offer you high grade supplies made of Cypress (to last a lifetime) at prices you can afford to pay.

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Package Bees and Queens
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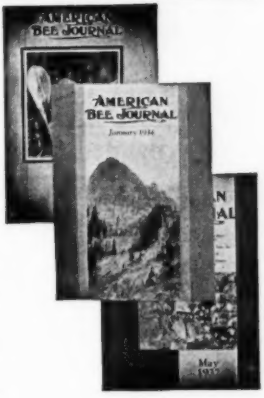

1938 Looms Up

1937 is now history, and to many it probably does not bring very pleasant memories. However, due to copious rains in many sections that had suffered drouth, the horizon of HOPE, which is the beekeeper's staff, appears to be brighter for next year.

An acute shortage of honey should inspire every beekeeper to keep more bees, better. We are prepared in every way to serve you better than even we have done in the past.

Jensen's Apiaries, Macon, Miss.
Box 305

Queens! Queens!

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Importers and breeders of highest quality Caucasian bees and queens.
Write for free circular.

CARNIOLANS
CAUCASIANS

The queen and package business is over for this year. We thank our many customers for their patronage. We are planning to take care of a greater volume of business for season of 1938.
ALBERT G. HANN, Glen Gardner, N. J.

Three-Banded Italian Queens

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Post Office: Shasta, Shasta Co., CALIFORNIA.
Express Office, REDDING, CALIF.

MERRY CHRISTMAS

(Continued from page 723)

rating and nothing needing a strong right arm at the moment set them to making the Christmas candles. Provide plenty of clean pretty colored beeswax. Melt it over hot water and tint it with a tiny portion of red or green oil paint. Heavy cord will serve for the wicks. Dip a piece of the cord into the hot wax, remove and allow to harden a bit before dipping again. Repeat until candles of the desired size are obtained. It requires patience, 'tis true, and competition will run high to see who can make the smoothest, best shaped candle. It will keep little hands happily busy.

Should you like to try your hand at candle molding, the nickel cylinder of a discarded gasoline lamp pump makes an excellent mold. Remove the plunger and run a wick of braided string through the cylinder. A cork may be used as a stopper at one end of the mold. Knot one end of the braided wick and place between the halves of the split cork. The wick may be made taut by a match tied to it so that the match lies across the opening of the cylinder. Pour the melted beeswax, colored as desired, into the cylinder. When hard, dip the cylinder in hot water and carefully push candle out.

Slender jars may be used for molds. A piece of cardboard should be fitted into the bottom of such a mold, a small hole punctured in the center through which a wick is run and knotted.

And whether your candles merely lend a decorative note to the holiday season or actually cast their soft glow over the holiday feast there will be joy in the making. Merry Christmas, everybody!

A Good Rule to Go By

Buy your Italian bees
and queens from
ALABAMA APIARIES
MT. PLEASANT, ALA.
Marketing Agreement Prices

BETTER-BRED QUEENS---Three-Banded Italians

Booking orders for packages for 1938. Let us quote you our prices on queen cages, any size you wish. We can save you money.
Trade Agreement Prices
CALVERT APIARIES
CALVERT, ALABAMA

PRESENT PROGRESS IN INDUSTRIAL UTILIZATION OF HONEY

(Continued from page 729)

facturer located in the eastern part of the United States submitted a sample of foreign honey to us stating that it gave more satisfactory results than any of the domestic types of honey they had tried out for their particular purpose. They stated further that they would be glad to use domestic honey, provided a type could be located that would be as satisfactory as the sample of foreign honey for their particular purpose. While an effort was made to locate a supply of domestic honey that would be suitable, the problem was not solved satisfactorily, because of lack of knowledge of the characteristics and composition factors that determine the suitability of honey for that particular use.

A great help in this connection would be the establishment of honey exchanges, where the honeys of producers could be graded and classified by experts, in the same way as is done for syrups, coffee and other agricultural commodities. The mixing of products of diverse origin in suitable proportions to produce blends of standard uniformity has been practiced by various trades for many years. It is an art that might be applied with advantage in some cases to the marketing of second grade honeys for obtaining more uniform products for specific industrial needs. The debasement of high quality table honeys of fine aroma for the purpose of improving the flavor of inferior products is of course a practice that should be condemned.

(To be continued)

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WHY LITURGICAL CANDLES ARE MADE OF BEESWAX

(Continued from page 725)

creation, has not only not been voided but has been established yet more firmly and invested with added meaning and beauty.

The strict prescription of the Catholic Church, therefore, that candles used on the altar where Christ, the Son of the Virgin Mary, takes up again an earthly abode under the sacramental emblems, shall be of wax,—preferably 100 per cent pure, or at least "mainly" of wax—will never lose its reasonableness, for the waxen candle so used can never lose its symbolism and beauty.

Package Bees and Queens for 1938

Quality bred Italians, larger quantities, better quality and service. Write us for prices and book orders now for spring delivery.

York Bee Co., Jesup, Georgia

(The Home of Quality Products)

PACKAGE BEES

For 1938

Stock recently imported from Italy.
Trade Agreement Prices.

The Crowville Apiaries

Winnsboro, La., Rt. 1.

WANTED—All kinds Honey Processing Machinery

CONSOLIDATED PRODUCTS CO. INC.,
15-21 Park Row, New York, N. Y.

Package Bees Queens

Let us quote you on package bees and queens for your 1938 needs.

We have both imported and domestic stock.

Many large honey producers are demanding imported stock exclusively.

Our cell builders are fed only on honey, the natural food of the bees.

Satisfaction Guaranteed

Rossman & Long
Moultrie, Georgia

Index to Gleanings in Bee Culture

Volume LXV, 1937

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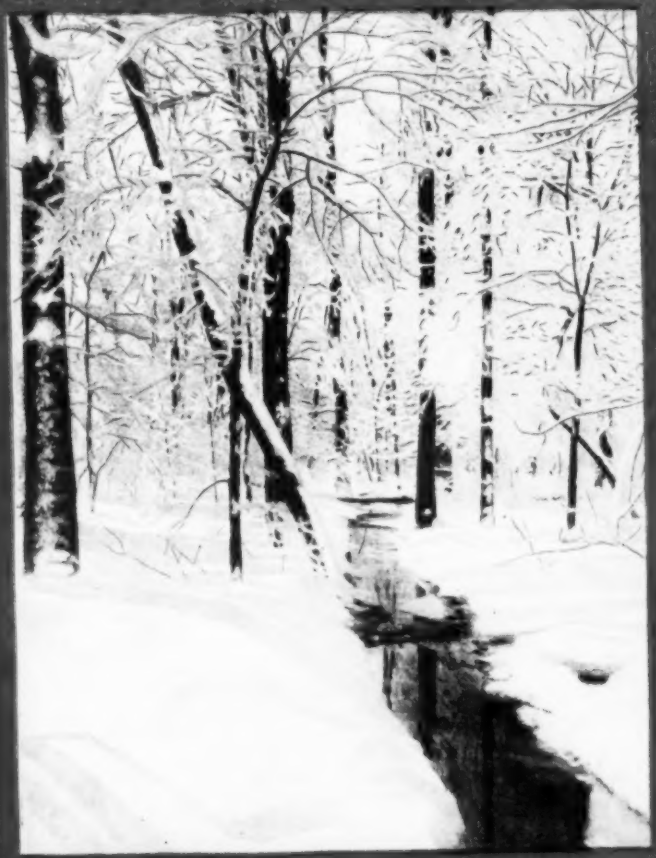

Volume LXV February, 1937 Number 2

XUM

Two New Branch Houses

Here is the building we now occupy in Sioux City, Iowa.

Above is a picture of our new warehouse at Springfield, Ohio.

Here are pictures of two new Beeware warehouse locations intended to facilitate the distribution of Lewis-Dadant-Woodman bee supplies.

• • •

Our warehouse formerly located at Wheeling, West Virginia, has been closed. This branch is now located at 110 West Main Street, Springfield, Ohio, in charge of Mr. Jere Frazer.

• • •

In Sioux City to give better service we have moved from 1915 East Fourth Street to 11 West Third Street. This branch will still be in charge of Mr. Gaile Creger as heretofore.

• • •

Our branches at Albany, New York, in charge of Mr. Walter Severson and at Lynchburg, Virginia, in charge of Mr. A. D. Hiett, are still at your service.

• • •

Let us figure on your 1937 bee supply needs. No obligation if we submit prices (a small advance effective in January). What can we do to help you toward success in 1937?

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Established 1863

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BRANCHES — ALBANY, NEW YORK LYNCHBURG, VIRGINIA WHEELING, W. VA. SIOUX CITY, IOWA

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GLEANINGS
in Bee Culture

Experiment Station Apiary at Paramaribo, South America

Volume LXV March, 1937 Number 3

NEED COACHING?

Here is a Modified Dadant hive tiered up with a good crop of honey. No shifting brood chambers, looking for queens, or all the useless labor beekeepers have come to think necessary in producing large crops at low cost.

Every honey producer feels the need of a friend of experience to whom he can go at times for dependable advice. Here is that "friend" in the "Coaching Service" offered for the first time to the hundreds of beekeepers now using the Modified Dadant hive. It is of even more value to the hundreds who will use this hive for the first time in 1937.

A few beekeepers, hesitant for lack of knowledge about this revolutionary method of honey production, may now adopt this labor saving hive with long awaited satisfaction. This new "Coaching Service," written by the Dadants themselves, tells just how to use their hive to the best advantage. It is written after their years of experience.

Every piece of equipment you own, 8- or 10-frame, may be used without loss, except bottom boards, in adopting the Modified Dadant hive to your apiaries. Bodies or section supers may be used as supers and your present covers over all, if you wish. Best of all, you eliminate most of the old-time methods that take hours of your time in the rush season.

This "Coaching Service" is valuable even if you do not use their hive, but after reading it you will want only the Modified Dadant hive. Send 25c for this 6-part, 24-page "Coaching Service" and a copy of the 1937 Lewis-Dadant catalog will also be sent. You will say it was your best investment in 1937. Send today.

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GLEANINGS in Bee Culture

Among the Pines---Apiary of W. D. Bozard, South Carolina

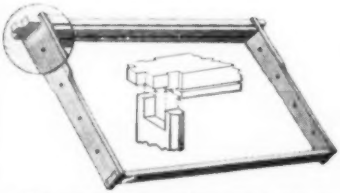
Volume LXV April, 1937 Number 4

XUM

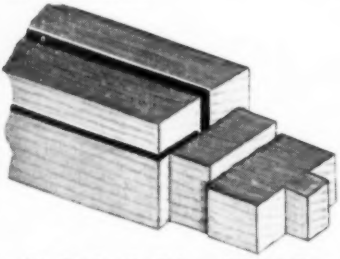
WHEN YOU PAY FOR

STRONG FRAMES

WHY NOT GET THEM?



The upper picture shows the Lewis end spacing construction that needs no staple for either short or long top bar style. The lower picture shows the strong lug in every Lewis frame.



WHAT is the weakest part of a frame? Ask any old-timer or commercial producer and he will tell you the lugs or ends of the top bar. Perhaps there is no greater nuisance than to have a lug break on a frame filled with perfect comb or full of brood or honey. It's like a sore thumb!

This break seldom happens with a Lewis frame, for these frames are built differently. This common frame weakness has been overcome by building Lewis frames with a heavier patented lug on the top bar, as shown in the lower illustration. Ask any mechanical engineer how much this additional thickness built into Lewis frames increases their lug strength.

Better still, if you are not now using these strong Lewis frames with Dadant's Crimp-Wired Foundation, send us ten cents to partially cover cost and packing, and we will send one free. It will be all set up so you can look it over and even put it right into the hive and see how it works. No staples needed. See how quickly the bees draw out this pure wax foundation.

When you compare prices of frames be sure to compare the frames too. You will always get this strong frame from any Lewis dealer. They will last years longer and cost less in the end, besides saving hours of time in setting up and ready use in the bee yard. If you compare the goods when you compare the price, you will always buy Lewis Beeware!

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GLEANINGS in Bee Culture

"The fragrance of blossoms in May."---From "Maytime."

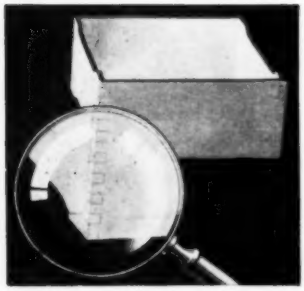
Volume LXV May, 1937 Number 5

XUM

Announcing

A NEW FINISH

on Lewis Section Honey Boxes



See how the dovetails lock tightly without jamming.

How would you like a finish on section honey boxes that is smoother than ever? Would you like sections sanded to a real velvety finish? You can clean the surface of these sections easier than ever, to present an unstained surface for sale. You get this only in the new Lewis section honey box, offered first by us for 1936.

Honey producers have long sought for a smoother finish on section honey boxes. This should enable them to clean off propolis stains easier and more efficiently than from sections not so finished. Although Lewis sections have for years enjoyed the reputation of having a fine finish, we were not satisfied with the job we did.

By the installation of new equipment and enlargement of our mill, Lewis now offers this additional advantage in "Beeware" section honey boxes at no additional cost to the producer. Remember, you get this only in "Beeware."

See "before and after" finish you get in Lewis sections.

Along with this new finish you get the choice of Wisconsin's basswood, which no other can offer. Lewis buys many hundreds of thousands of feet of basswood yearly for other products besides sections, thus giving you the benefit of our buying power in basswood.

All Lewis sections have the tight, lock-corner dovetail and non-break V-groove that have made "Beeware" the "Standard of the Beekeeping World." Try Lewis sections in 1937. Produce some section honey and get better prices this season.

Ask for a free copy of our booklet, "A Hobby That Pays," and a 1937 "Beeware" catalog.

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GLEANINGS in Bee Culture

Volume LXV June, 1937 Number 6

Yes sir, even the bees will applaud your judgment in using Continental Honey Cans and Pails.

In addition, these bright, clean cans will appeal to your customers and assure them of the honey reaching them in excellent condition —a sales point well worth considering. Complete information, prices, sizes, terms or samples may be secured from any of the distributors listed here, or any of our offices.

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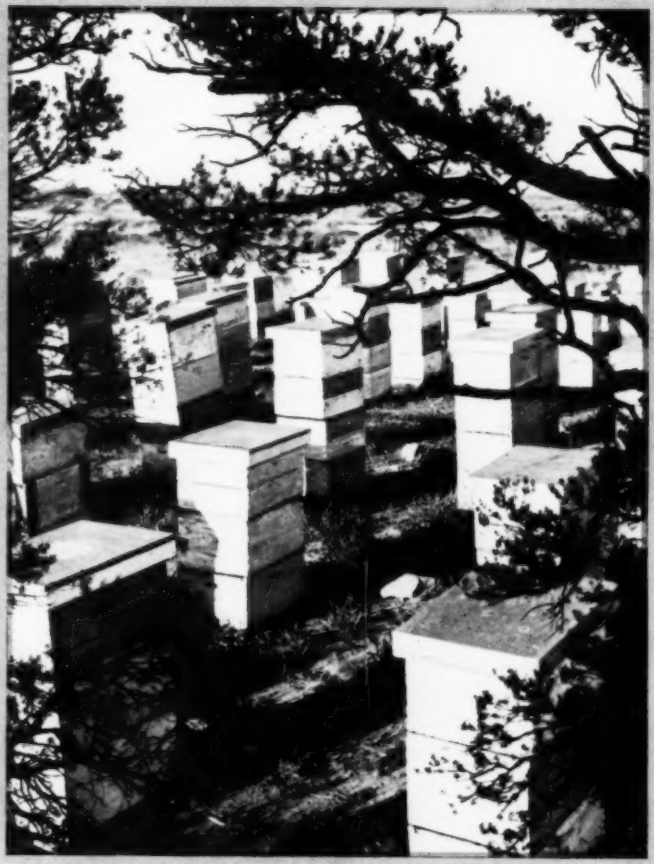

Sunlight and shadows in G. A. Pauli's Colorado apiary

Volume LXV July, 1937 Number 7

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GLEANINGS in Bee Culture

An apiary, calm under warm tropical skies,
Is a thing to dream of, and a delight to the eyes.

Volume LXV August, 1937 Number 8

XUM

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GLEANINGS in Bee Culture

A glimpse of the home apiary belonging to H. A. Danielson, Keene, Colorado

Volume LXV September, 1937 Number 9

XUM

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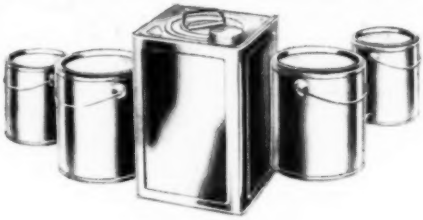

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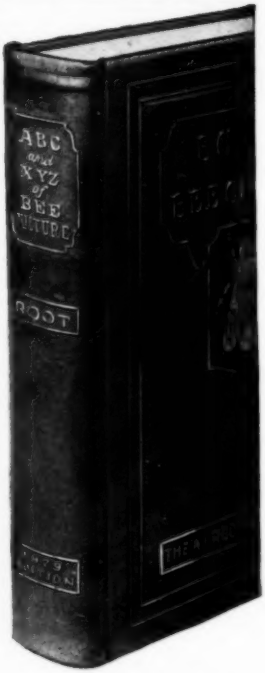

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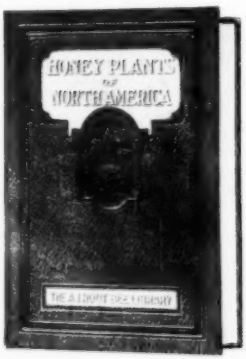

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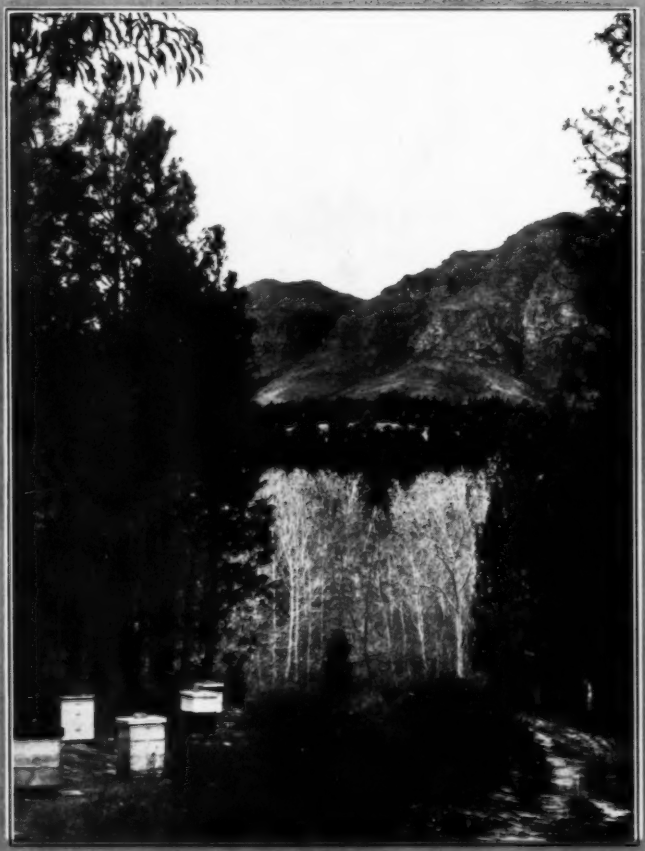

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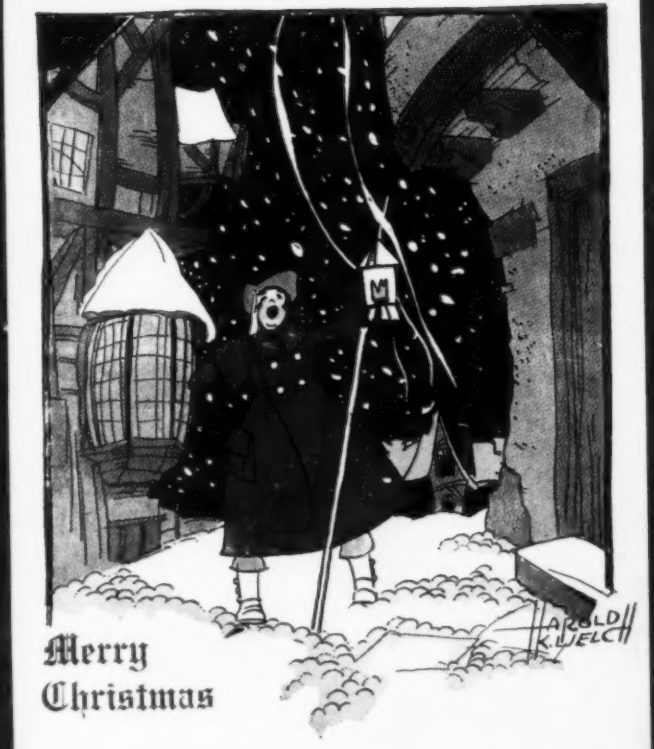

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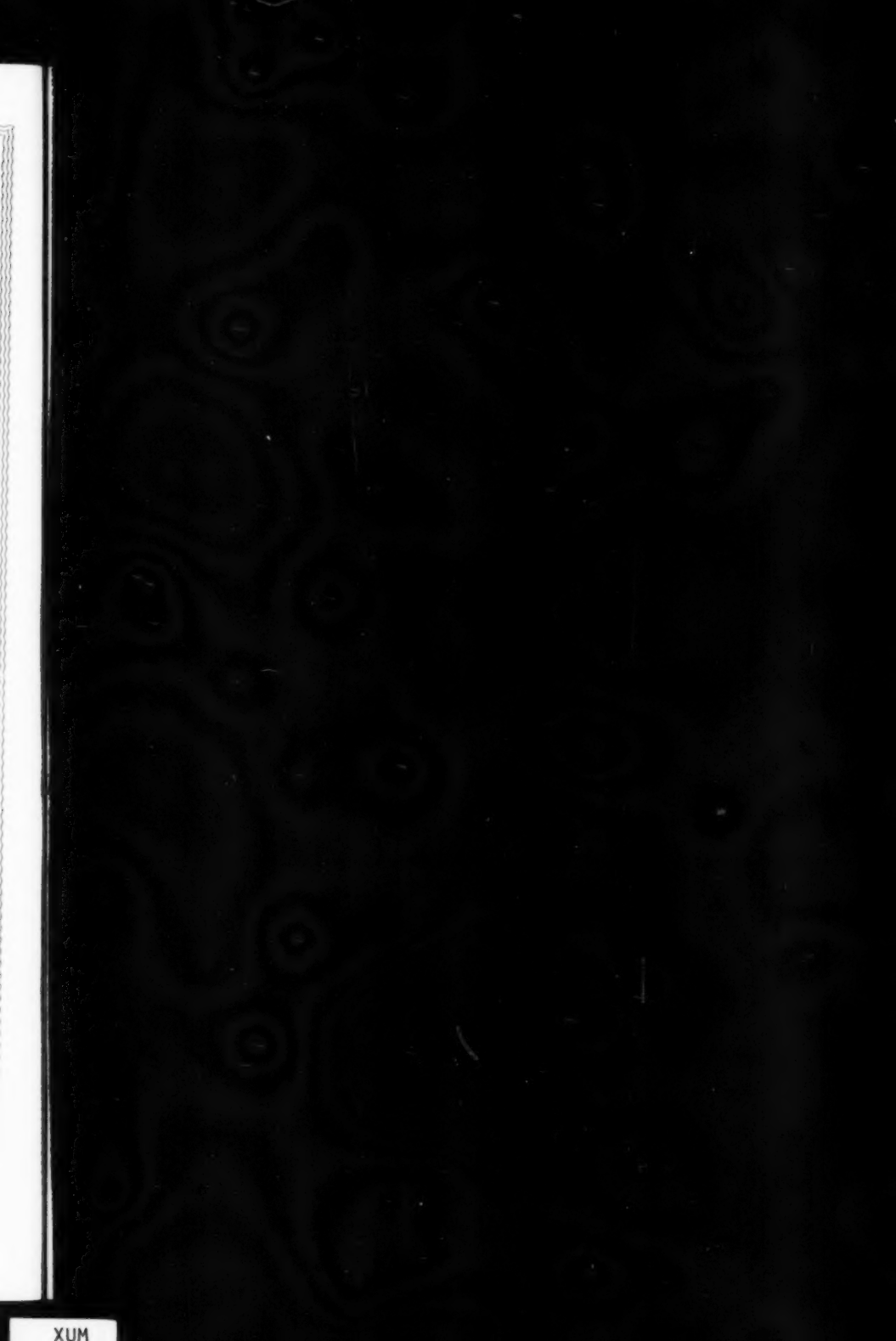

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